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of the Michigan State Medical Society

J. D. Brook, M.D., Grandville
MSMS President
1929-1930

JULY, 1945

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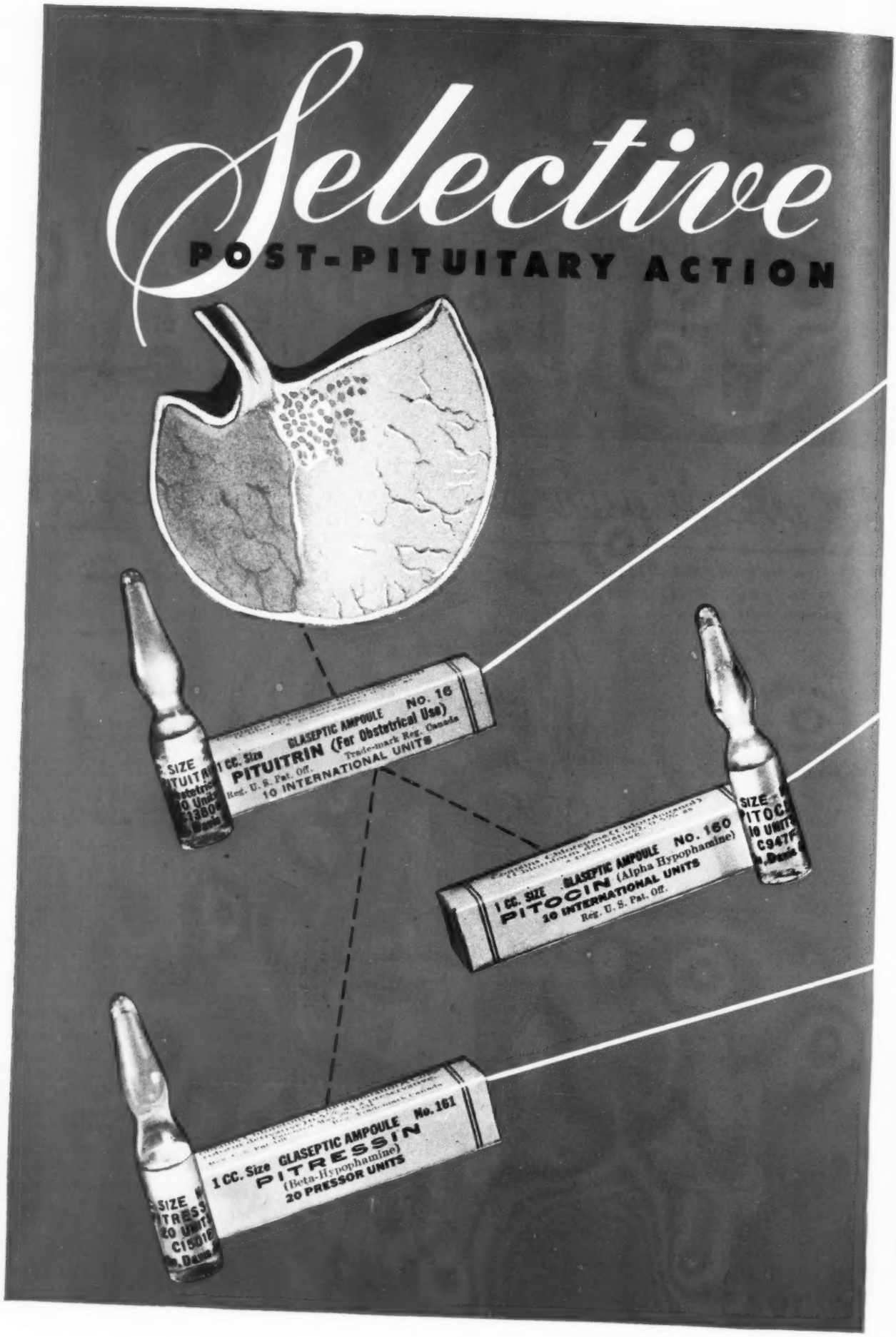
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DOSAGE: 1 or 2 teaspoonfuls in a glass of water, milk, or fruit juice once or twice daily, followed immediately by another glass of liquid. It may also be placed on the tongue and washed down, or it may be eaten with other foods such as cereals. Ample fluid intake is advisable to assure maximum bulk formation.

*Gray, H and Tainter, M L.; *Am. J Digest Dis.* 8:130, 1941

TRADE MARK MUCILOSE—REG. U.S. PAT. OFF.

You and Your Business

WAGNER SOCIAL SECURITY BILL OF 1945

Early information concerning the new social security bill (S. 1050) introduced by Senator Robert F. Wagner, on Thursday, May 24, 1945, indicates that the measure differs from the original Wagner-Murray-Dingell Bill in only three major respects:

1. A hospital construction program is included.
2. Tax rates for employers are 4 per cent, for employes 4 per cent and for self-employed 5 per cent, applied to wages up to $3,600.
3. The medical care provisions have been modified in an attempt to overcome the charge of "socialized medicine." Dental and nursing services included.

The new bill contains ten sections, as follows:

Section 1. Short title is: *Social Security Amendments of 1945.*

Sections 2 and 3. Provide for grants and loans for hospital construction and other health facilities.

Section 4. Provides for federal grants to states for expansion of public health services.

Section 5. Provides for federal grants to states for maternal and child health and welfare services.

Section 6. Provides for federal grants to states for an increased comprehensive and public assistance program.

Sections 7 and 8. Provide for continuation of federal operation of the United States Unemployment Services.

Section 9. Establishes a national social insurance system in eight parts:

Part A. Provides for insurance for medical care costs.

Part B. Establishes unemployment insurance benefits and *temporary disability benefits*—same basis as original bill.

Part C. Establishes retirement, survivors and *total disability benefits*—same basis as original bill.

Part D. Establishes national social insurance trust fund.

Part E. Establishes credit based on $160.00 wages for each month of military service.

Part F. Extends coverage to about 15 million additional persons.

Part G. Establishes contribution rates—see above.

Part H. General provisions.

Section 10. Definitions.

Members of the Michigan State Medical Society are urged to write to their Congressman or to one of the U. S. Senators from Michigan, asking for a copy of S. 1050 (or H. R. 3293, the companion Bill in the House).

* * *

AFFIDAVIT TO ESTABLISH SERVICE CONNECTED DISABILITIES

The MSMS Committee on Medical Veterans' Readjustment Program met on May 16 with Governor Harry F. Kelly, Colonel Philip C. Pack and Major A. D. Alguire of the Office of Veterans' Affairs, State of Michigan. The ensuing discussion on the readjustment program for doctors of medicine separated from military service, on emergency hospitalization of veterans, and on booklets of information for returning medical veterans indicated the great scope of the Committee's work.

The need by veterans of affidavits to establish service-connected disabilities was presented. Major Alguire stated that the livelihood for the rest of the veteran's life may depend upon an affidavit.

The medical men present urged that the Office of Veterans' Affairs develop a short model affidavit form, as simple as possible. Such a certificate has been developed and is printed below. The form is a model of compactness and yet contains all the necessary information.

CERTIFICATE OF ATTENDING PHYSICIAN

THIS IS TO CERTIFY that I, as a practicing physician, duly licensed by the State of .....
attended ....., during the following
(Name of veteran)
periods: .....
.....
and upon physical examination elicited the following objective clinical findings and symptomatology: .....
.....
.....
.....
.....

Is the above information furnished from memory or your office records? .....

If the information is taken from office records a verbatim transcript of such record with dates should be furnished in the space provided next below.

.....
.....
.....
.....

Date ...., M.D.
(Signature of Physician)
.....
(Address)

Personally subscribed and sworn to before me, a Notary Public, this .....day of ....., 19....

(Turn to Page 648)

CIVILIAN MEDICAL TREATMENT OF SOLDIERS

In order to receive civilian medical treatment at Government expense, military personnel must be on *authorized* leave, pass or furlough in an area in which Government facilities for such treatment are not available within a reasonable distance.

The physician or hospital rendering treatment must notify *without delay,* by wire or letter, the Commanding General, Sixth Service Command, 20 North Wacker Drive, Chicago 6, Illinois, attention the Surgeon. The notification must give the name, rank, organization and station of the person treated, the diagnosis and the estimated duration of treatment.

Treatment will be limited to conditions of an acute nature, and no surgical procedures except in emergency will be accomplished without the approval of this headquarters. Treatment of elective medical or surgical conditions is not authorized, and laboratory procedures considered nonessential to the diagnosis and treatment are not compensable.

Private rooms and special nurses will not be provided without authorization from this headquarters.

On completion of treatment, an *itemized* statement will be mailed to this headquarters covering all services rendered.

* * *

MEDICAL SACRIFICES IN WAR

During this struggle the medical profession has contributed over 50,000 of their numbers to the armed forces. These highly skilled men are capable of bringing years of experience wherever needed. They are of all ages, from cities and villages, specialists and general practitioners working together for the common cause.

As a result, 97 out of every 100 soldiers wounded in battle were saved. In addition, miracles of rehabilitation have been performed. The death rate from illness was reduced more than 95 per cent over what it was in the last war. This record reflects the high caliber of the medics who are responsible for the welfare of our fighting men. Those who have lost their dear ones can be assured that the best of care was always available.

By May of 1945, over 438 physicians had died while serving their country. Of these, 130 were killed in actual combat. This figure represents only a certain proportion of the total because of the natural delay in releasing information of this type. This does not include the litter bearers who go unarmed into the thick of battle in search of the wounded nor the ambulance drivers, nurses, technicians, and dentists. These men and women have faced risks so that others might live. They can be found in foxholes, landing barges, and ships at sea and in the air.

Others have subjected themselves to the dangers of research. This group includes those who studied tropical diseases and the effects of various machines on the human body. One flight surgeon, who was testing a certain oxygen container for high altitude jumps, descended in a parachute from an altitude of nearly 8 miles (40,200 feet), and set an American record. Another, who tried a similar experiment, was killed in the attempt.—*Chicago Tribune,* June 3, 1945.

GIFT TO WAYNE UNIVERSITY

Clark D. Brooks, M.D., has made a grant to the College which will furnish tuition to a Negro student enrolled in the College of Medicine.

CROWDED HOSPITAL SITUATION

At the final session of the State Legislature, June 7, 1945, the Senate launched an investigation into the crowded hospital situation. Senator Charles S. Bondy of Detroit complained that patients holding hospital service contracts, commonly called hospital insurance, were crowding hospitals for treatment of relatively minor ailments.

The crowding is so bad, he said, that persons vitally in need of hospital treatment sometimes could not be received.

Bondy said the recent death of his mother was in part due to inability to find hospital accommodations for her when she was stricken with a heart ailment three weeks ago.

At the same time hospitals were filled, he said, with patients receiving treatment for less vital illness. Many of these would have been treated at home, he said, except they could not collect hospital service benefits unless they became hospital patients.

WAYNE MEDICAL SCHOOL HONORS OLD GRADUATES

Life memberships in the Wayne University College of Medicine Alumni Association were presented to 20 medical men at the annual dinner of the association held Wednesday, May 16, 1945, at the Statler. All were graduated from the school fifty or more years ago.

The oldest graduate honored was Dr. John A. Wessenger, for the past 30 years health officer for the city of Ann Arbor. Dr. Wessenger, who despite his eighty-five years is still in active practice, received his diploma in 1882.

Life memberships were also presented to Dr. Walter J. Cree, for many years historian of the Wayne County Medical Society, who was graduated in 1883; Dr. Alfred N. Shotwell, of Mt. Clemens, 1884; Dr. Mortimer E. Roberts, of Grand Rapids, 1889; Dr. William J. O'Reilly, of Saginaw, 1890; Dr. Christian Storz, of Toledo and Dr. Adolphus J. W. Nixon, of Highland Park, both of the class of 1891; Dr. N. T. Shaw, of Pontiac, 1892; Dr. D. J. McColl, of Port Huron and Dr. William H. Hoppenrath, of Elwood, Indiana, both graduated in 1893.

Honored members of the class of 1894 included Dr. George Alexander, of Pontiac; Dr. Henri Belanger, of

(Continued on Page 658)

It's The Law, Doctor!

Juris ignorantia est, cum jus nostrom ignoramus—Old Maxim

NOTES ON COURT DECISIONS, STATUTES AND OTHER AUTHORITIES

Hospital Records—Admissibility in Evidence

J. JOSEPH HERBERT, LL.B., General Counsel MSMS
Manistique, Michigan

Prior to 1935, in Michigan as in most American jurisdictions, the admissibility of business records in evidence was hedged about with a great many archaic rules and decisions. The common law on which our practice was based, required that the books to be admissible be of "original entry"; that there be testimony of one having personal knowledge of the facts represented by the entries; that the use of the records be limited to proof of debits and credits in trade, and in addition, had a multitude of other technical restrictions and qualifications. Indeed, as was said by the appellate court of New York, "Under modern conditions, the limitations upon the right to use books of account, memoranda or records made in the regular course of business, often resulted in a denial of justice, and usually in annoyance, expense and waste of time and energy. A rule of evidence that was practical a century ago had become obsolete. The situation was appreciated and attention was called to it by the courts and text writers." JOHNSON v. LUTZ, 253 N. Y. 124.

As a consequence of this situation, the Legal Research Committee of the Commonwealth Fund in 1927 published a report proposing a reform in the proof of business transactions to harmonize with current business practice. The report, based on extensive research, pointed out the confusion existing in decisions in different jurisdictions. It explained and illustrated the great need for a more practical, workable and uniform rule, adapted to modern business conditions and practices. At the close of its report, it proposed a statute to be enacted in all jurisdictions, to afford a more workable rule of evidence in the proof of business transactions.

Maryland, New York and Rhode Island promptly followed the suggestion, and in 1935 the Michigan legislature enacted the model law. The new act extended the old rule to include books and records kept in a "profession, occupation and calling of every kind," and thus, for the first time in Michigan, hospital records were made specifically admissible in the same manner as books of business. Hospital records may be received in evidence, regardless of whether they constitute an original entry or whether the entrant is available to testify to its correctness. If it can be shown that the hospital record was made at the time or shortly after the happening of "any act, occurrence or event" in regular course, when it was the regular course of the hospital to make such record, it is considered sufficiently authenticated to be admitted in evidence.

In the first case involving a hospital record to come before our supreme court after the adoption of the model act, the hospital chart containing the following was held admissible, per se:

"Remarks: 7:50. Admitted to the hospital, carried in. Bleeding from mouth, pulse very weak. Color cyanotic. 8:00. Doctors Vaughan and Hudnutt here. No pulse. Respiration ceased. Medicine: Caffeine amp. 1. Admitted 7:50 p.m. Discharged 8:00 p.m. Exp."

The Court said: "We hold that the hospital records in the instant case came within the purview of the act and it was error on part of the trial court to exclude them." GILE v. HUDNUTT, 279 Mich. 358.

The act, nevertheless, has its limitations. For example, hospital records may not be used to show that a person had practiced medicine without a license, although a hospital chart made in regular course by a nurse in the admitting room indicated medical practice. The decision rests on the well-recognized rule that one accused of crime has a right to be confronted with the witness against him, and records may not be substituted. PEOPLE v. LEWIS, 294 Mich. 684.

Another limitation in the use of hospital records, is that they may be used solely to prove facts, transactions, occurrences or events incident to treatment. The patient's narrative or history of his case or his account of the manner in which his injury occurred prior to admission to the hospital, are regarded as pure hearsay and the hospital record may not be used to prove such matter. In the case of SADJAK v. PARKER-WOLVERINE Co., 281 Mich, 84, the sole question presented was whether the plaintiff met the burden of proof to establish that her husband sustained a compensable injury that arose out of and in the course of his employment. The decedent had suffered a double lineal fracture of the skull in the right frontal portions. He was taken to a hospital, where he remained for five days, was later removed to his home, taken to another hospital, and died on the following day. Hospital records were offered in evidence and contained portions which stated that the decedent fell from a ladder. There was no other proof as to the manner in which the patient had been injured. The court said:

"What decedent told the hospital authorities did not refer to any act, transaction, occurrence or event in the hospital treatment. The portion of the record thus objected to was pure hearsay and of no evidentiary force, and inadmissible."

(Continued on Page 757)

In the treatment of cardiac failure or decompensation . . .

DIGITAN

● A primary consideration in the therapeutic use of a drug is that it shall be of definite and uniform potency. This is particularly true in the case of digitalis and its preparations, since the full therapeutic effect of this drug practically coincides with the minor toxic manifestations.

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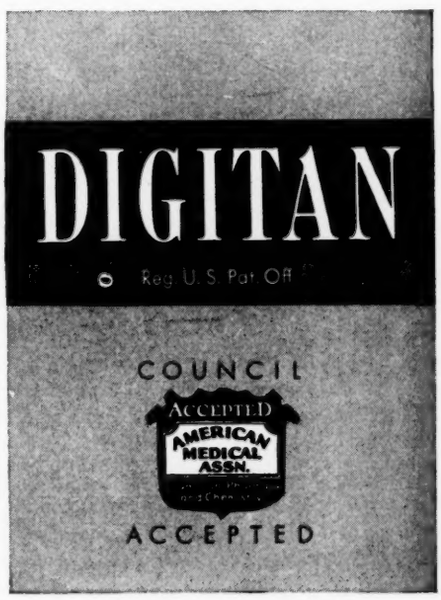
Literature will be sent on request



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Business Side of Medicine

MEDICAL INCOMES IN WARTIME

A Comparison of Income and Expense in 1939 and 1944

By HENRY C. BLACK and ALLISON E. SKAGGS
Battle Creek, Michigan

On previous occasions[1,2], we have reported our average findings of incomes and expenses in the various offices of the members of the Michigan State Medical Society, hoping to furnish figures which would be of value to those desiring to make comparisons with their own experience. Much has been said about the increases in business enjoyed (?) by the medical doctors in wartime and the careless talk which has distorted the thinking of physician and layman alike has prompted us again to present actual figures taken from records at our disposal.

A note of explanation might well be in order before presenting these figures in detail. In the first place our source of information is the M.D. for whom we work. Although we lost approximately 40 per cent of our clients to the Armed Services, we have more than replaced them with men generally older and with much better established practices. Also with the early recruiting of physicians from the smaller communities, the ratio of men in small towns to those in the larger cities has changed somewhat. In general, however, our figures are taken from the same localities, from the same type of practice and from the same sources as they were in our report of the 1939 figures[2] differing only in the fact that a small part of the increase in income shown in 1944 could be accounted for by the reduction in the number of sets of figures of the younger men, which comprised part of our earlier averages.

With thousands of physicians in the Armed Services, and with the high industrial employment, it is not surprising to find the average gross income up two or three times that of 1939. Of course, in individual cases, this increase varied more but the surprising thing to us has been that the increase was not greater. Obviously such an increase in volume never would have occurred had the Doctors not equipped themselves with adequate help, better office facilities, more efficient office routines, etcetera. The assistance Professional Management was able to furnish in this conversion to wartime medicine was one more proof of the importance of being currently informed as to the trends of practice, and being prepared to take immediate advantage of them. As a matter of fact, even before we entered the war many of our clients were urged to enlarge their quarters, duplicate their equipment and augment their staffs for an increase in volume.

One other observation should be brought out in this respect; namely, that in all our experience we found very little evidence of any increase in fees, except in those cases where they were well below average before the emergency. There were very few cases where the law of supply and demand prompted short-sighted physicians to take advantage of the situation and, in general, the apparent increase in fees was that which necessarily resulted from the elimination of all unnecessary "frills." This seemed to be the only way to take care of many communities and not permit anyone to go without necessary medical care.

The following table is almost self-explanatory. The first two columns are the average income and expense figures for our medical doctors in 1939 and in 1944 respectively. The third column represents the 1944 percentage increase over 1939.

AVERAGE INCOMES AND EXPENSES
1939 and 1944

	1939	*1944*	*Percentage of Increase*
Business Done	$12,406.91	$30,229.74	143%
Cash Received	10,954.10	29,637.00	170%
Expenses:			
Rent	630.87	1,012.50	61%
Drugs & Supplies	1,166.51	2,500.00	114%
Salaries	1,115.75	3,221.00	190%
Car, including Depreciation	589.59	900.00	51%
All Other	1,313.75	1,156.50	165%
Total Expense	$ 4,816.47	$ 9,790.00	103%
Profit	6,137.63	19,847.00	223%
Income Tax	400.00	6,558.00	1539%
Net profit after Income Tax.	5,737.63	13,289.00	132%

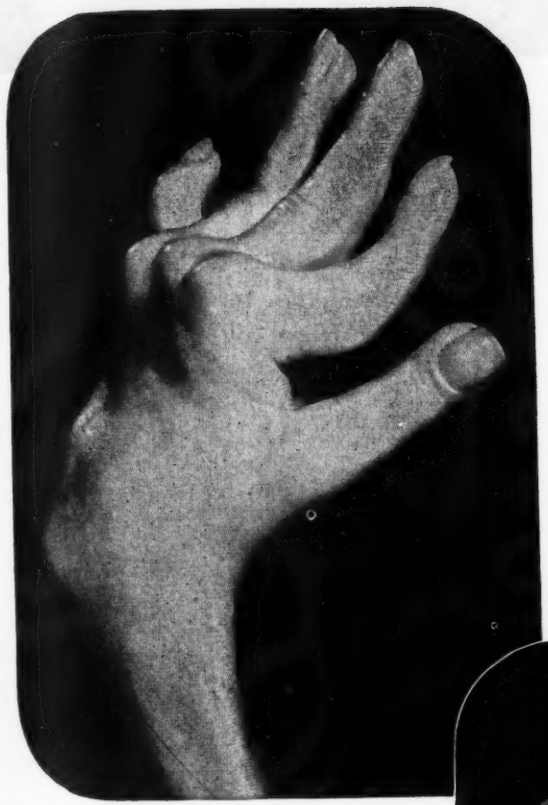
It might be well to discuss some of these increases in detail. For example, the principal reason for the increase in rent is not, as might first be imagined, an increase in rates paid, but rather results from the additional space required. Likewise, although the relative number of house calls per dollar of income dropped, there was almost as much, if not actually as much, driving as in 1939, *plus the repairs necessary* to keep older automobiles on the road. With few new cars available, even to the doctors, car expenses as a result increased 51 per cent.

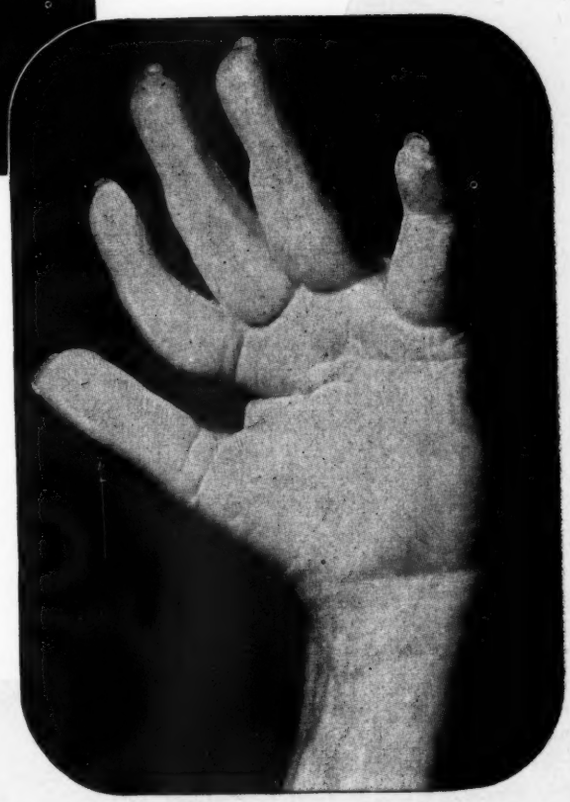
Drugs and Supplies did not increase quite as much as the increase in volume of business, and this can be explained by pointing out that previous averages included the figures from many doctors in rural communities who dispensed more than their city colleagues. Also, the general trend, even in larger communities, was toward more prescriptions and less dispensing.

Salaries (the only item which went up more than the volume) increased both in the rate paid and in the number employed. Naturally the larger volume of

(Continued on Page 656)

# of ERTRON in Arthritis





Certain of the joints are swollen and discolored, a result of early periarticular inflammation and then secondary growth of fibrous tissue. General involvement: feet, ankles, knees and elbows. X-ray shows the following advanced rheumatoid changes: marked narrowing of all the joint spaces, punched out areas of bony destruction, loss of articular surfaces of the metacarpal phalangeal joints and some lipping and osteophytes demonstrated best in the first finger.

MEDICAL INCOMES IN WARTIME

(Continued on Page 752)

work necessitated having more, and if possible, better assistants, nurses, laboratory technicians, etc. Also, without being held down by wage ceilings, except where more than eight persons were employed, and with wage rate competition in war plants and government agencies, payroll rates increased an average of 10 to 15 per cent per year from 1941 to 1944. We are now conducting a careful study of these increases and a report may soon be made available in a subsequent issue of THE JOURNAL of the Michigan State Medical Society.

The title, "All Other Expenses," includes such items as Depreciation of Instruments and Equipment, which remained about the same; Conventions, Dues and Journals, which remained almost constant; Laundry and Miscellaneous Office Expenses, which rose proportionately; Fees to others, which increased proportionately, and Social Security Taxes, which paralleled salary changes.

The most outstanding increase, of course, is in the Federal Income Tax, which increased over 1500 per cent! This was due in part to the higher incomes, but primarily to the several changes in the tax rate itself. Thus, while the net profit from profession (before taxes) went up more than the gross profit, because savings could be made in efficient management, the net profit *after taxes* increased much less, and although most doctors were better off financially, about half of the additional income was absorbed by the Income Tax. In a few cases, where the incomes were very high in 1939, *all or more of the increase in 1944 went for income tax!*

We have made no effort to analyze living expenses, life insurance premiums, et cetera. Living expenses were up and, in the average medical doctor's experience, much more so than the figures generally presented by government agencies. Due to many of our clients' using cash surpluses to pre-pay life insurance premiums (which may be discussed in another article) the total paid out for life insurance does not present a true picture of the annual costs, and was therefore not included.

Lest anyone confuse our averages with the income of the average physician, it should again be pointed out that these doctors for whom we work have much better than average incomes and of necessity, if PM service is of value to them, enjoy a higher degree of the fruits of their labors than does the average physician. Also these observations are based on dollar incomes; if the physical energy of these men is considered, most of them aged many years in the first three years after Pearl Harbor. Where we have as yet to experience a death among our well over one hundred former clients serving in the Armed Services, we have lost several on the home front through death, and many others have been temporarily disabled in the same period, many of whom would have survived in normal times. If the incomes could have been compared on a "per hour" basis, the results might have been surprising.

To summarize: our doctors did 243 per cent of their 1939 volume in 1944; collected 270 per cent of their 1939 collections. With the exception of salaries, their costs increased less than did the volume of their business, but income taxes absorbed nearly half of the additional profits.

2004 Central Tower
Battle Creek, Michigan

REFERENCES

1. Black and Skaggs: The cost of practicing medicine. J. Michigan M. S., (August) 1937.
2. Black and Skaggs: A study of incomes and expenses for 1939. J. Michigan M. S., (Sept.) 1940.

War Medicine

SURGEON GENERAL OUTLINES PERSONNEL RELEASE POLICY

Substantial releases of Army Medical Department personnel will not take place before the latter part of this year, Surgeon General Norman T. Kirk said in announcing a policy on discharges in conformity with War Department procedures. This is due to the fact that the peak of the Medical Department's activities will not be reached until fall.

In formulating the policy, consideration was given to civilian needs for professional medical, dental and veterinary care without weakening military needs. Other factors considered were the length of time necessary for personnel to complete their work in the Mediterranean and European theaters and return to the United States; replacement of Medical Department personnel in active theaters by those who have not had overseas duty; necessity for the maintenance of a high standard of medical care; the heavy load of patients in the United States; evacuation of the sick and wounded from Europe in the next ninety days and continuing medical service in the Pacific.

The policy applies with equal effect to Army medical officers assigned to the Veterans' Administration and other agencies.

It reads:

Medical Corps

(a) Officers whose services are essential to military necessity will not be separated from the service.

(b) Officers above 50 years of age whose specialist qualifications are not needed within the Army will receive a high preferential priority for release from active duty.

(c) Adjusted Service Ratings will be utilized as a definite guide to determining those who are to be separated.

Medical Department Accomplishments

During the past three years, the Medical Department has maintained a record of less than one death from disease per 1,000 men per year. During the World War, 19 out of every 1,000 men died each year from disease. During the Spanish-American War we lost 26 out of every 1,000 per year, and in the Civil War, 65 out of every 1,000 men died each year from disease.

In all, during this war, 12,000 men died from disease from December 7, 1941, to May 1, 1945. In World War I, 62,670 men died from disease; in the Spanish-American War, 3,500 died from disease, and in the Civil War, 336,216 men of the Union and Confederate armies died from disease.

The peak of the Medical Department's activities will not be reached until the fall of 1945. At present, wounded and sick are being returned to this country from all theaters at the rate of 44,000 a month. This evacuation will continue until all of the patients in the European and Mediterranean theaters are removed, which will require ninety days.

A release from the Michigan Department of Health for May 21, 1945, reports that more than two million dollars have been spent in Michigan during the two years of this EMIC program for the care of over 32,000 wives and new babies of servicemen. There have been applications for 28,639 wives and 4,061 infant care. The old canard that the EMIC "pays for all medical care for maternity cases from the beginning of pregnancy, through the postpartum examination which is given about six weeks after the baby is born," is still released to the public press. We understand that is true, but the amount is very definitely limited to five pre-natal attentions and one postnatal. As we understand adequate maternal health programs, that is not considered enough, but the doctor who cares for these patients is estopped from charging for more than that minimum.

Dr. Martha Eliot, associate chief of the Children's Bureau, reports that more than 750,000 maternity cases have been cared for by the Bureau, and that the federal government is now paying for one birth out of six.

* * *

The war in which we are engaged has produced many seemingly unsurmountable problems, problems without precedent in the development of new weapons, new methods of training, and new tactics. But none of these problems has been more difficult than the problems faced by our Medical Department in caring for the largest American Army in history, fighting in virtually all parts of the world. And yet, no Army at any time in history has achieved a record of recovery from wounds and freedom from disease comparable to that of the American Army in this war.

* * *

The Medical Department, its doctors, its nurses, its corpsmen, has saved the lives of ninety-seven out of every 100 men wounded in battle who reach a hospital, compared with ninety-two in the World War. Seventy out of every 100 wounded overseas were returned to duty, and twenty-seven evacuated to this country.

WAYNE MEDICAL SCHOOL HONORS OLD GRADUATES

(Continued from Page 648)

River Rouge; Dr. Alexander Thomson, of Detroit; and Dr. Orlando A. Tooker, of Lansing.

The class of 1895 was represented by Dr. C. W. Barrett, now of Chicago; Dr. Adelbert Edwards, of Detroit; Dr. Thomas E. DeGurse, of Marine City; Dr. C. D. Monro and Dr. George E. Winter, both of Jackson; and Dr. Burt R. Shurly, member of the Detroit Board of Education.

Main speaker at the dinner meeting was Dr. C. A. Mills, professor of experimental medicine at the University of Cincinnati, who spoke on "Climatic Imprint on Man."

Table of Contents

EPHEDRINE preparations are particularly suitable for topical application in the nose to relieve congestion, to maintain the patency of sinus openings, and to facilitate breathing. Ciliary activity, with its rhythmic motion like that seen in a field of waving grain, is not impaired by the use of Ephedrine, nor does the drug interfere otherwise with local tissue response to infection. Numerous Ephedrine products by Lilly are available, including inhalants and aqueous dilutions. Eli Lilly and Company, Indianapolis 6, Indiana, U.S.A.

Lilly

The JOURNAL

of the Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOLUME 44 JULY, 1945 NUMBER 7

The Pathology of Rickettsial Disease

By Robert A. Moore, M.D.
St. Louis, Missouri

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American physicians in the past have had little practical need for information on rickettsial diseases. In the 1930's an increasing number of patients with Rocky Mountain spotted fever was observed in the Midwestern and Eastern states. American troops are now stationed in parts of the world where louse-borne and flea-borne typhus and scrub typhus or tsutsugamushi fever are endemic or epidemic.

The essential anatomic lesion in rickettsial disease is an inflammation of vascular walls with secondary inflammation in certain viscera and tissues. The clinical signs and symptoms are directly related to the pathologic changes.

■ NOT so many years have passed since the attitude of the practicing physician in the United States toward the rickettsial diseases could be summarized as "oh, the rickettsia are some strange, small parasites, like bacteria. I learned about them in school, but they are of little importance to me now, because the rickettsial diseases, typhus and spotted fever, are not prevalent in the continental United States except in Montana." Perhaps this was correct in 1910, but it is not true in 1944. Let us see then how and why there has been and must be a change in interest and viewpoint.

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The Scope of Rickettsial Diseases

The rickettsiae were first described by Howard Taylor Ricketts, of the University of Chicago, in 1909, and were so named by daRocha Lima in 1916. During and after World War I epidemic typhus was a major problem in the Balkans and in Eastern Europe. Our basic knowledge of typhus dates from that period. Shortly after the war, one of the most distinguished of American scientists, Dr. R. E. Dyer, of the United States Public Health Service, interested himself in Rocky Mountain spotted fever and, with many associates, notably Cox and Topping, has contributed much to the subject.

It is customary to say that there are three basic types of rickettsial disease—the typhus fever group, the spotted fever group, and the group seen in Japan and the Southwest Pacific usually known as tsutsugamushi fever. The reason for this classification is evident if we examine the results of the Weil-Felix reaction. Each of this group gives a so-called "main" agglutination, with a different strain of bacillus proteus.

	"Main" Agglutination
Typhus fever	OX19
Spotted fever	OX2
S. W. Pacific group	OXK

This classification might be satisfactory for superficial study, but unfortunately there are several diseases which do not fit into the scheme, and there is some confusion because of false interpretation of earlier investigations. For example, Sao Paulo "typhus" shows morphologic and immunologic characteristics suggesting that

it is a spotted fever but the "main" agglutination is with OX19, the variety characteristic of typhus.

From the standpoint of the bacteriologist, the best classification is one based on the distinct species and varieties known to cause disease (Pinkerton).

Genus Rickettsia
- Species prowaseki
  - Variety prowaseki (louse-borne typhus)
  - Variety mooseri (murine typhus)
- Species tsutsugamushi (tsutsugamushi fever)
- Species ruminatium (heart water fever)
- Species pediculi (? trench fever)
- Species burneti (Q fever)

Genus Dermacentroxenus
- Species rickettsi (spotted fever)

One is apt to become lost in the maze of nomenclature unless the many local synonyms are borne in mind. For the five principal rickettsial diseases they are as follows:

1. Louse-borne typhus—Epidemic typhus, and classical typhus
2. Murine typhus—Endemic typhus, flea-borne typhus, tabardillo, urban typhus of Malaya, Brill's disease, shop typhus of Malaya, ship typhus of Toulon, and South African typhus.
3. Rocky Mountain spotted fever—Sao Paulo typhus, and boutonnose fever of the Mediterranean.
4. Tsutsugamushi fever—Scrub typhus, rural typhus, Sumatran mite fever, Japanese River fever, pseudotyphus, and coastal fever of Australia.
5. Q fever—Queensland fever, Australian Q fever, and Nine-Mile fever.

In addition to these well-recognized diseases, there are several others not yet sufficiently well studied to define; notably the rickettsioses of India (Topping, Heilig and Naidu).

Related in the methods of transmission, but probably not rickettsioses, are Colorado tick fever, South African tick fever, Kenya typhus, and Colombian spotted fever. At least the sera of patients with these conditions do not contain agglutinins against any strain of proteus OX.

The Prevalence of Rickettsial Diseases

Regardless of cause—increasing recognition, or absolute increase—it must be acknowledged that many more examples of rickettsial disease were seen in the United States during the fourth decade of the 20th century than in the second and third decades. Let us for a moment examine the statistics for a few selected states of the Southern United States (Table I).

For eleven southern states the increase in sixteen years from 1922 to 1938 has been 150 fold, as shown in Table II, taken from the paper by Meleney.

TABLE I. ENDEMIC TYPHUS CASES REPORTED

State	*1926*	*1931*	*1935*	*1939*
Georgia	17	290	489	1,103
Louisiana	—	1	20	115
Texas	20	43	265	583
Alabama	47	80	294	471

Of even greater interest to you is the appearance of typhus in so-called northern states, and of spotted fever in the eastern states, during the last twenty years. In Table III I have taken the figures from the quarterly morbidity tables of the United States Public Health Service for the year 1943 and tabulated the cases reported from the nine geographic divisions of this country.

TABLE II. CASES OF ENDEMIC TYPHUS

1922	15
1926	112
1930	375
1934	1,265
1936	1,711
1938	2,272

TABLE III. CASES REPORTED IN UNITED STATES
1943

District	*Spotted Fever*	*Typhus Fever*
New England	2	4
Middle Atlantic	43	22
East North Central	40	3
West North Central	40	3
West North Central	15	3
South Atlantic	172	1943
East South Central	34	810
West South Central	14	1700
Mountain	97	2
Pacific	21	30

It is perhaps surprising that there were more examples of spotted fever in the South Atlantic part of this country than in the mountain part where it was first recognized, and got its name Rocky Mountain spotted fever. It is significant that at least one case of both spotted fever and typhus fever has been reported from every geographic division of this country.

To bring this matter directly into your home state I have tabulated in Table IV similar data for the five states which constitute the West-North-Central part of the United States. Until January 1, 1944, not a single example of Rocky Mountain spotted fever had been observed in the state of Michigan.

TABLE IV. CASES REPORTED IN WEST-NORTH-CENTRAL STATES
1943

	Spotted Fever	*Typhus Fever*
Ohio	11	0
Indiana	9	1
Illinois	12	1
Michigan	0	0
Wisconsin	1	1

The apparent increase in the examples of spotted fever is well shown in Table V, taken from the studies of Smith and Reinhard.

TABLE V. INCREASE IN SPOTTED FEVER

State	*1935*	*1937*	*1939*	*1941*
Missouri	0	0	7	13
Arkansas	1	11	23	10
Illinois	2	6	19	17

I might add to this study of Smith and Reinhard, that the first examples of spotted fever were seen in the department of pathology at the Barnes Hospital in the summer of 1941. At that time we reviewed the autopsies for the preceding thirty-one years and re-examined material from all cases in which the diagnosis might have been spotted fever. We did not succeed in finding a single example of the disease. It would therefore appear that, at least in our experience, spotted fever was first seen in St. Louis about 1941.

In order to gain some insight of relative values let us compare the incidence of spotted fever and typhus fever with some conditions ordinarily given far more consideration.

TABLE VI. CASES REPORTED IN UNITED STATES
1941

Disease	*Cases*	*Deaths*
Spotted Fever	506	111
Smallpox	1396	12
Tularemia	1531	136
Meningitis	2032	643
Typhus Fever	2787	132
Typhoid Fevers	9086	1061

It is apparent that spotted fever and typhus fever, both as a cause of illness and as a cause of death, deserve more consideration than has been given to them. Typhus fever in the United States causes more illness than does epidemic cerebrospinal meningitis, tularemia and smallpox. It is almost one-third as common as is typhoid and paratyphoid fevers.

Finally, I must mention that the shipment of American troops to all parts of the world where typhus and tsutsugamushi fever are prevalent completes the picture. American physicians, both in the Armed Forces and in civilian practice, must familiarize themselves with the recognition, prevention, and treatment of rickettsial disease.

Recognition of Rickettsial Disease

It is only proper that, as a pathologist, I confine myself to a consideration of those factors, in the recognition of disease, which come within the province of laboratory medicine. Further, although we must today think of disease in terms of the world rather than of our own country or small community, I shall confine my remarks largely to the distinction between spotted fever and endemic typhus, since these two occur in the United States.

The first topic then is an exploration of the field of clinico-pathologic correlation. What are the anatomic and physiologic lesions of the rickettsial diseases, and how do these lesions produce the signs and symptoms?

The infectious agent is usually introduced into the body by the bite of an insect—a louse, tick, rat flea or rat mite. Following the inoculation into a susceptible host there is an incubation period, during which time the organisms proliferate and are disseminated to all tissues. As might be expected the incubation period varies with the dosage of organisms and the susceptibility of the host from three to fourteen days. During this time there are few symptoms other than indefinite systemic symptoms of an infection such as malaise, headache, and other ordinary signs. In tsutsugamushi fever and in boutonnose fever a local lesion usually appears at the site of the bite of the insect. There is a punched out focus of bland necrosis, with only slight inflammation of the surrounding tissue.

With the onset of the distinctive disease most of the signs and symptoms are directly related to an inflammation of small blood vessels. The rickettsiae gain entrance to the cells of these vessels and there evoke an inflammatory reaction. In spotted fever there is, in addition, necrosis of the wall, followed in some instances by thrombosis within the lumen. This lesion in the skin inevitably results in the formation of a small focus of inflammation which is slightly elevated, firm and red, either from marked congestion or from actual hemorrhage into the tissue. Hence the name, spotted fever and exanthematous typhus. Occasionally, possibly related to the lesions of the blood vessels, but more likely related to lesions of the nervous system, there are foci of symmetrical gangrene of the trunk or extremities. Not infrequently occlusion of the small terminal vessels to some peripheral part of the body such as the tip of the nose, the lobes of the ears, and the ends of the fingers will result in gangrene. Throughout all of the viscera, but more especially in the serous membranes, there is this same lesion, and hence the appearance of petechiae and ecchymoses in the tissues. In the liver and kidneys there are the usual changes of an infectious disease, that is, cloudy swelling and fatty degeneration of the parenchymal cells. In

the liver this may lead to some enlargement and slight tenderness over the organ because of stretching of the capsule. In the kidney the change in the cells of the tubules and in the cells of the glomeruli lead to a slight albuminuria. In the heart, in addition to the usual vascular lesion, there is not infrequently a mild interstitial myocarditis. This does not become apparent until the second week of the disease when it is reflected clinically by an increase in the pulse rate and by a fall in blood pressure.

In the central nervous system there are distinctive lesions, probably related to the stupor and coma so characteristic of epidemic typhus fever, and seen also in the more severe examples of endemic typhus and of spotted fever. The lesions involve the blood vessels and the surrounding cerebral substances. There are formed in the brain small nodules composed of degenerated nervous tissue infiltrated with gitter cells and other types of inflammatory cells.

In those parts of the world where spotted fever is a relatively common disease, and during periods when louse-borne typhus is epidemic, there is little trouble in recognizing the condition on the basis of clinical sign and symptoms. However, in the United States each physician sees so few examples of either spotted fever or endemic typhus, and many of these are mild, that he is not in a position to make a correct diagnosis in many instances. We must, therefore, turn to the laboratory for assistance in establishing the diagnosis.

Weil-Felix Reaction.—Before discussing the specific immunologic tests for the rickettsioses let me present a general concept of the use of serologic reactions for the diagnosis of disease whether it be typhus, typhoid, or one of many others.

The basic principle to remember is that the animal organism, when it comes in contact with an antigen, will usually elaborate an antibody in proportion to the dosage and duration of contact. There are, of course, exceptions to this statement but we may, for the moment, accept the broad principle.

Now let us assume that a specimen of blood is submitted to a laboratory for some serologic test. The titre is found to be one to one hundred and twenty-eight. The patient has been ill for three days with a disease characterized by the sign and symptoms of an infection. What are the possibilities? First, the patient may have had this specific disease some years ago and this low titre represents a slight residual immunity. Second, the patient may have had this specific disease many years ago and now has some other related disease which is calling forth a non-specific anamnestic reaction. Third, the patient may have been vaccinated and the titre is related either to residual immunity or to an anamnestic reaction. And fourth, the patient has, for the first time, the specific disease and is beginning to produce antibodies. Decision as to which of the four possibilities is correct is relatively easy, but is too infrequently employed as a diagnostic procedure. A part of the basic concept was that antibodies are elaborated in proportion to the duration of exposure. It is clear then that two determinations of the titre of antibody, one early in the course of the disease and one late, may be of far greater significance. A rising titre, during the course of a disease, is diagnostic. Do not be discouraged and, above all, do not completely reject a diagnosis because the laboratory reports a negative serologic reaction on blood drawn during the first few days of any disease. Parenthetically, I hasten to add that I am not soliciting business for the pathologists of Michigan, although I would not be adverse to this, but only presenting one of the many procedures with which the well-trained professional, clinical pathologist serving as a consultant and not as a technician can make a real contribution to clinical medicine.

The Weil-Felix reaction is one of those bizarre phenomena of biology, which so frequently confuse the investigator. The original observation was that patients with clinical typhus fever develop a rising titre of agglutinating antibody for certain strains of proteus. The probable explanation is that the rickettsiae, and the proteus group of bacteria, contain a closely related or identical antigenic substance (Castenada).

TABLE VII

	Typhus	*Spotted Fever*	*Tsutsugamushi Fever*
OX19	+++	+	—
OX2	+	+	—
OXK	—	+	++

There is a certain degree of cross agglutination with the three strains of proteus, as shown in Table VII prepared by Pinkerton.

Complement Fixation Tests.—Although all of the technical difficulties have not yet been completely overcome, the complement fixation reaction bids fair to be the most specific of the easily determined laboratory procedures.

The antigen is prepared from some source in which the rickettsiae are present in large numbers as, for example, from the yolk sac of the developing chick embryo. Anticomplementary substances are removed and the final test carried out in the usual fashion.

The same principles discussed in the paragraph on the Weil-Felix Reaction apply to an interpretation of the significance of complement fixation tests. A rising titre with a definite reaction by the middle of the second week at a level of 1:128, or 1:256, is secured in endemic typhus. Complement fixing antibodies apparently persist in significant dilutions for at least five years after active infection, and hence are a better criterion of past disease than the Weil-Felix reaction (Bengston & Topping).

Isolation of Organism.—The method of choice for the isolation of rickettsiae, from a patient suspected of having a rickettsiosis, is the intraperitoneal inoculation of five c.c. of blood into a male guinea pig. The blood should be collected during the first week of the disease. A sharp distinction cannot be drawn by this method between typhus and spotted fever, but there are certain differential features of relative value (Pinkerton).

Observation	*Typhus*	*Spotted Fever*
Mortality	0	variable
Loss of weight	slight	moderate
Swelling of scrotum	0	usually
Necrosis of scrotum	same basic lesion, but thrombonecrosis in spotted fever	
Lesions of vessels	serosal cells,	endothelial cells,
Location of organisms	rarely in endothelium	rarely in serosa

Since the disease in guinea pigs is not always lethal, the temperature should be taken once or twice a day for four to sixteen days to determine if a slight illness has been induced. If a fever develops, the animal may be sacrificed on the fourth to the sixth day and an autopsy performed. The following procedures are desirable:

1. Direct examination of a smear of the scrapings of the tunica vaginalis and the exudate for rickettsiae.

2. Inoculation of blood or scrotal exudate into other male guinea pigs.

3. Preparation of sections for histologic study of at least the tunica, testis, and the brain.

4. Preparation of tissue culture explants of scrotal exudate or spleen.

Further steps in the identification depend on cross neutralization experiments. The most satisfactory technique is to secure known strains of typhus and spotted fever rickettsiae. Guinea pigs are inoculated and the animals which recover are used for the experiment after a period of one month. A guinea pig which has recovered from typhus shows complete immunity on reinoculation with typhus and varied immunity on inoculation with spotted fever. Slight cross immunity is reflected in a prolonged incubation period and decreased mortality in guinea pigs which have recovered from typhus, and are then inoculated with spotted fever rickettsiae. Strains of spoted fever rickettsiae vary greatly in virulence and the protective effect of a previous inoculation in the guinea pig is in general directly correlated with virulence.

Tissue Culture.—It is by this method that a sharp and definite distinction can be drawn between typhus and spotted fever.

The rickettsiae of typhus fever multiply rapidly in the cytoplasm and distend the cell. Nuclei are not invaded but become pyknotic. The organism of spotted fever on the contrary grows most abundantly within the nuclei and only sparsely in the cytoplasm. The explants in tissue culture may be made either of the spleen or of the scrotal exudate.

Incidentally, this behavior in tissue culture is the same as in the arthropod vector with the added difference that typhus rickettsiae are confined to the cells lining the alimentary tract, while those of spotted fever are in all tissues.

Biopsy.—A definitely formed macule should be excised, fixed in Regaud's solution, and stained by Giemsa's method. The lesions are similar in typhus and spotted fever, but necrosis of the vascular walls and thrombi in the lumen are conspicuous features of spotted fever. On the other hand, identification of rickettsiae in the smooth muscle cells of the arteriolar walls is diagnostic of spotted fever, since the organism of typhus is

not found in these cells, but confined to endothelial cells.

Neutralization Tests.—If the diagnosis has not been established by the end of the second week a neutralization test for the presence of protective antibodies in the serum of the patient may be carried out. The serum is mixed with known infective rickettsiae of typhus or spotted fever and injected intraperitoneally into male guinea pigs.

Summary

Rickettsial diseases are widely distributed in many parts of the world. In the United States there are two important representatives, Rocky Mountain spotted fever and murine typhus. There is not a single geographic division of the United States which, during the year 1943, did not report to the United States Public Health Service at least one case of each of these. There has been an apparent increase of both in the last ten to twenty years; the result either of increased recognition or of actual spread. Physicians in all parts of the country should become familiar with the clinical signs and symptoms of the disease and with those laboratory tests which will assist in establishing the diagnosis.

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MSMS

Harry E. Plaggemeyer, M.D., presented a case, "Bilateral Pneumopyonephrosis Due to B. Protens Americanus," before the Chicago Urological Society at the annual meeting May 24. This is the first case on record in which carbon dioxide pyelograms have been found in a recognized diabetic, caused by the above organism.—*Detroit Medical News*, July 9, 1945.

Bronchial Asthma

Diagnosis and Treatment

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Effective treatment of Bronchial Asthma depends upon avoidance of the allergenic factors, and desensitization when indicated. There is no short-cut to finding the offenders. Every available recognized procedure should be incorporated in determining these factors. An adequate history is one of the most important items in revealing the major allergens. This in conjunction with other procedures helps solve most of the diagnostic problems encountered in Bronchial Asthma. This paper deals with a working routine in arriving at an etiologic diagnosis of bronchial asthma, giving valuable aids in extracting important information and clues.

■ In approaching any allergic problem a definite program must be followed, aiming primarily at an etiological diagnosis. When the underlying causes have been ascertained, specific measures of treatment can then be instituted. Attempting to treat asthma and related conditions solely with symptomatic medication deprives the patient of the opportunity of becoming a comfortable citizen, and threatens him with the constant danger of exacerbations. It is not only important to determine the nature of the asthma but also that of related allergies. Knowledge of existing complications is important for proper management of the entire condition. When one is positive that he is dealing with an allergic manifestation, his efforts are then directed at unfolding the specific underlying factors, which are chiefly in the nature of inhalants, foods, drugs or bacteria.

There are several steps to be taken in reaching conclusive clinical evidence. Of utmost and primary importance is a detailed history. Next, a thorough physical examination should be undertaken with special attention to organs involved,

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accompanied by skin tests, and routine and special laboratory procedures. Finally, measures aimed at proper dietary management are used as a therapeutic test; then specific treatment may be instituted. Throughout the study, the patient should be kept comfortable with palliative measures. The ultimate goal is the discovery of the offending allergens, so they can be eliminated, where possible, and specific desensitization applied where indicated.

History

In approaching the problem at hand the most important single diagnostic procedure is a detailed history. Many clues can be obtained which otherwise would remain unrecognized if the patient is guided through a chronological résumé of all illnesses, with special stress on allergic manifestations. The patient frequently does not realize the scope of symptomatology which may be attributed, in whole or in part, to reactions of hypersensitivity. It is, therefore, of extreme importance to approach each common allergic manifestation by asking leading questions.

In infancy and childhood, eczema and feeding problems are usually the earliest manifestations of an allergic nature. Thorough and carefully taken histories will often elicit these important facts. Other complaints which should be made a matter of record are urticaria, angioneurotic edema, conjunctivitis, frequent respiratory involvements, canker sores, headaches, gastro-intestinal upsets, chronic fatigue, hayfever, perennial rhinitis and sinusitis. These may all be allergic in origin, and when elicited in the present or past history, may finally prove to be on the basis of the same or related underlying allergic background.

In bringing out all historical details of past allergic manifestations, one is better equipped to proceed with the problem at hand, namely, bronchial asthma. If, at this point in the history, suggestive evidence has been revealed, these factors can be utilized in treating the existing asthma. Their significance will become apparent during the course of the illness. If, for example, milk was a known clinical offender in previous years, having caused some allergic condition other than the asthma, it might at present also be one of the factors of significance. It should, therefore, be eliminated from the diet temporarily, and returned with the object of causing a slight upset after the patient has been completely relieved of all symptoms.

One should next proceed with a chronologic recording of the asthmatic attacks in relation to age of onset, time of year when exacerbations are most prevalent, duration of symptoms and known factors which precipitate the attacks. In cases where difficulty or exacerbations occur only during a specific time of the year, a helpful clue is thus obtained. For example, the predominant inhalant factor during the early spring and early fall months is dust. Closing the doors and windows and turning on the heat in the fall causes an increased concentration of dust in the home. In the early spring, the trees pollenate and may add or precipitate attacks of asthma as well as hay fever. Grass pollen appears in the early summer months, but is pretty well out of the air by mid-July. If the major complaint occurs from approximately the middle of July to August, before the ragweed family pollenates, fungus sensitivity is strongly suggested. This factor may also be a perennial cause of asthma but the peak of its presence in the air is reached during the midsummer period. Any combination of inhalant factors may cause asthma and thus make the picture more complicated. Allergy due exclusively to foods usually improves during warm weather, unless the food is a seasonal one precipitating symptoms only when ingested. On the other hand, improvement during the summer months may mean that the patient is not being exposed to as great a concentration of inhalant factors in the home because of increased outdoor activity.

During an attack of bronchial asthma, the symptoms may fluctuate during a twenty-four-hour period. It is important to note the time of day when symptoms are definitely aggravated or are more apt to appear. If this occurs following meals, it is suggestive of either a food or physical allergy. Hot or cold foods may be the causative or precipitating mechanism. Symptoms which occur only after retiring are strongly suggestive of offending allergens being present in the patient's room. Inhalants such as dust, feathers, orris root and cosmetics are present in this room in greater concentration than elsewhere. They may be harmful only in such large exposures as contacted during the sleeping hours, and thus cause asthma at night or in the early morning hours. On the other hand, it may be due to the pathological physiology incident to this con-

dition. Foods can, and often do, cause symptoms during the night as well as during any time of the day. The delayed reactions, in relation to food offenders, are more common than immediate ones and therefore much more difficult to ascertain.

Atmospheric alterations, such as temperature and humidity changes, are often responsible for precipitating attacks. Rapid changes of weather will often result in an acute episode. As a working explanation, it is not untenable that with atmospheric alterations a general increase in tissue fluids occurs and the patient who is on the verge of an attack may be thrown into the symptom class. Other factors such as menstruation, pregnancy and bacterial disease may serve also in lowering the patient's allergic threshold. Under average conditions, the patient may get along in apparently perfect health with no obvious difficulty in breathing. When the above-mentioned additional factors enter the picture, the patient's tolerance is lowered and symptoms precipitated. In such individuals, the allergenic substances are not present in sufficient quantities, under average conditions, to cause a disturbance in the shock organs, but they are constantly close to the border or on the verge of an upset. As long as the bronchial tissue is not aggravated, the patient remains within the zone of health. The allergic tolerance varies from day to day and may explain at least in part the fluctuations in asthmatic symptoms. This also helps explain the reason an allergic individual who is a potential asthmatic may not experience symptoms for many years. This eventually occurs when the allergic threshold is exceeded. It may also explain the reason patients can at times be well controlled by proper allergic management of one phase of sensitivity (food or inhalants), when, actually, multiple factors are at fault. This fact often gives the doctor the erroneous impression that only one factor is of significance. It is therefore well to keep this explanation in mind as a working basis in treatment as well as in diagnosis. If, at one time, the patient responds solely to dietary management, and at other times does not, it means that the therapeutic approach is not entirely correct and that additional offenders may be responsible.

Detailed questions are directed toward determining the effects of environment in relation to bronchial asthma. The length of time a patient has resided in his present location, where he lived previously, the difference of health in the various localities, and the presence of surrounding fields with unruly vegetation are all points of extreme significance in seasonal and perennial cases. Sometimes an important clue is revealed when the patient states that he notices slight dyspnea when in the cellar or attic of his home, thus suggesting dust or mold sensitivity. When symptoms occur in relation to contact or close proximity to a new object of furniture, for example, when the sufferer is definitely worse when sitting in an easy chair, animal dander and other materials used in stuffing these items is suggested. The type of heating device may be of importance. Other questions should be directed towards eliciting an intolerance to dust. This can easily be done by making inquiries regarding the effects of exposure to dust, either at home or at work. Pets, plants, cosmetics, furs, insect sprays and numerous other items with which the patient daily comes in contact at work or at home may be the sole or major cause of the difficulty. Sometimes inquiring into a patient's hobby reveals a significant factor. The materials used and the environment in which any special hobby is engaged in should be recorded and evaluated.

Drug sensitivity is a common source of trouble in allergic individuals, and should not be overlooked as a possible offender. It is not sufficient merely to ask whether a patient uses drugs or other medications. They frequently do not consider such items as aspirin, laxative, or other habitual proprietaries in this category, and therefore give answers in the negative. Specific questions naming all possible lay medications should be directed to facilitate the patient's memory. The effect of foreign protein in past treatment is of importance. Serum sickness, which frequently follows injections containing horse serum, has been experienced by many individuals in past years and should be made a matter of record.

Often the greatest aid in reaching the etiologic objective is obtained from the least suspected source. Therefore, what appears as a short cut in history-taking ends up in a detour or blind alley. Psychogenic factors should be sought for routinely. Emotional upsets, nervous tension and extreme fatigue may all act as a "trigger mechanism" in precipitating attacks of asthma. To consider these psychogenic factors as primary and exclusive causes, I believe is placing the cart before the horse. It is possible, however, that in an allergic individual, once the train of asthmatic

symptoms has been set in motion, other influences which upset the autonomic or vasomotor system's balance may also precipitate attacks.

The patient is, at this point in the history, allowed to give some of his own impressions as to what he believes are the extenuating circumstances which aggravate or precipitate the asthma. Important clues are frequently obtained in this manner, and the patient is given an opportunity to express his opinion. Food, as a cause of asthma and other allergies, is extremely important and should be dealt with in sufficient detail, which cannot be given to this subject in a paper of this type. All food dislikes should be recorded, because they often parallel actual clinical offenders. The patient is not always able to state specifically that he does not like a food because of its apparent harm, but such a statement should be sufficient evidence that elimination of that item during a trial period is indicated. Specific questions regarding each common food substance ingested daily will bring out more evidence than a single question directed at determining foods regularly causing allergic symptoms when eaten. For example, he is asked the number of slices of bread eaten per day, the number of eggs per day or week, the amount of milk, juices, etc. Some of the symptoms produced by the common daily foods are not necessarily directly related to asthma but may cause minor allergic upsets in other shock organs. Although immediate effects may be noticed in parts of the anatomy far removed from the lungs, the same foods may be causing delayed effects on the bronchial tissue. Other factors in the usual medical history must also be completely elicited so that a balanced picture of the patient's entire illness is obtained.

Laboratory Tests

The usual routine laboratory procedures such as blood counts, urinalysis and blood serology are performed as in other medical conditions when indicated. The sputum and nasal secretion should be examined, mainly for the presence of eosinophils. X-ray examination of the chest is an important and worth-while diagnostic procedure revealing complications which might otherwise cause greater difficulty in the management of this condition.

Specific Tests

In the past few years, skin tests have been popularized as a diagnostic aid in allergic conditions. It is important to bear in mind that such tests are not infallible and should be classed with other helpful laboratory procedures. If one realizes the limitations of such tests, he is more apt to obtain the maximum knowledge they afford, at the same time not overemphasizing their importance. The two types of tests in common use are the scratch and intradermal techniques. In both procedures, extracts are prepared from allergenic substances. In the scratch tests, superficial scratches approximately 5 mm. in length are made on the skin of the arm, forearm or back. Concentrated extracts are applied and allowed to act on these areas for 15 to 30 minutes. Positive reactions appear in hypersensitive individuals in the form of wheals and erythema surrounding the original scratches. The intradermal tests are performed over similar sites by injecting small quantities (0.03 c.c.) of extract which has been properly diluted. In comparison, the reactions obtained are ten times stronger than those obtained from materials in the scratch method. It is always well to begin testing with the scratch technique since these are less apt to cause constitutional reactions. There are cases on record where severe shock and even death resulted from scratch and intradermal tests. The scratch method is less sensitive, and therefore positive reactions are of greater significance when they do occur. On the other hand, it is difficult to ascertain borderline reactions. Therefore, after having made initial observations with this type of testing, intradermals with selected items are next indicated. In performing these, the same syringe and needle should not be used for more than a single item. If multiple tests are performed with the same equipment, false reactions may occur from even the minutest quantity of extract remaining from previous injections. For the sake of accuracy in obtaining what information it can possibly reveal, a complete set of syringes and needles must be maintained so that the same sets will always be used for the same materials. In spite of the utmost precautions, false reactions are common, especially in those patients who give strong true positive reactions to ragweed. On the other hand, negative reactions do not rule out the possibility of clinical sensitivity still existing. In performing skin tests, we are only determining the reactivity of one organ, namely, the skin, which does not always reveal the state of sensitivity existing in the bronchial tissue. With the

appearance of positive reactions, it must be kept in mind that present clinical sensitivity to an allergen must be finally judged by its ability to precipitate clinical reactions.

After recording the reactions of all the tests in the form of 1 plus, 2 plus, 3 plus or 4 plus, a decision must be made as to which are of present clinical significance. If, for example, wheat gives a positive reaction, but feeding of large quantities of this substance does not increase or precipitate the asthmatic state, wheat is then not considered a present clinical offender. This substance might have been the cause of other allergic manifestations in the past, and the skin still reveals a positive reaction in the form of a memory response. The size of the reaction does not necessarily reflect the degree of clinical sensitivity. A doubtful or plus-minus reaction may be of greater significance than a 2 plus, therefore, elimination on the basis of the severity of the reaction should not be the method of approach. If the skin tests are not given undue importance, applying them in the same manner we would consider other laboratory procedures in medicine, and correlating these findings with impressions obtained from other diagnostic measures, they render their geratest assistance.

Passive transfer tests which are performed by intradermal injections of small quantities of the patient's serum into a nonallergic subject causes sensitization of these areas in from 24 to 48 hours. These sites can then be used for direct testing with specified allergenic substances by the scratch or intradermal technique. This transfer of reacting bodies or antibodies from one individual to another affords a means of skin testing in infants without exposing the child to their possible dangers. The leukopenic index is often a helpful laboratory procedure in determining the allergenic status of food. When other methods do not reveal conclusive evidence about foods, it is well to keep this additional laboratory procedure in mind.

Diets

Hyposensitization with suspected inhalant allergens can be started as soon as these factors are ascertained. Dietary management should accompany such treatment. Having received all the available information from the history and special tests, we are now ready to proceed with dietary management. First an attempt is made with a diet eliminating all suspected foods. If, after a period of ten days or two weeks, no benefit has been derived, the patient is then placed on Rowe diets or one of their modifications. The patient should never be kept on a given strict elimination diet for too long a period. If, within a week or two, no apparent change occurs, one must conclude that the patient was either not clinically sensitive to any foods, or that the offending items still exist in the present diet, in whole or in part. The latter instance is often the correct interpretation of such poor results. On the other hand, when good results are obtained shortly after inauguration of a basic diet, new foods should be added one at a time, in large quantities, at approximately three-day intervals in an attempt to upset the patient. If asthma recurs in relation to the newly added food, that substance is then considered a definite clinical offender, and must again be omitted. There are many pitfalls in food management, and more detailed information may be obtained from recent texts on the subject. Suffice it to say that foods, as other allergenic substances, may be the cause of delayed reactions or upsets based upon the cumulative doses of the offenders so that no strict and fast rule can be applied to the specified time that may elapse before a reaction occurs.

As an aid in keeping a patient on a strict diet, and also giving the doctor a means of checking on it, a food diary is extremely important. This consists of a chart on which the patient records each item of food and also notes the daily reactions. Frequently this reveals possible offenders; but if it does nothing more it indicates to the patient the extreme importance of close adherence to the specified diet. With adequate dietary control, elimination or avoidance of inhalants or contact offenders, and proper hyposensitization, the majority of patients can be kept free from the distressing symptoms of bronchial asthma.

Symptomatic Treatment

It is well to have at hand certain emergency measures to combat any unforeseen upsets. Such drugs as are used for palliative administration are sometimes indicated. The drug of choice in bronchial asthma is epinephrine. The aqueous preparation in a 1:1000 dilution is used in doses of 0.3 to 1.0 c.c., injected subcutaneously as required. Epinephrine in oil given intramuscularly may be

used in 1.0 c.c. doses when a prolonged effect is desired. Epinephrine inhalations are of definite benefit, and can be administered by the patient as necessary. A 1 :100 solution of epinephrine chloride is instilled in a special inhalation apparatus and prompt relief from asthmatic symptoms may be obtained shortly after its inhalation. Ephedrine by mouth in the form of the sulfate or hydrochloride in doses of ⅜ or ¾ grain may be very helpful in relieving minor attacks. Sometimes the combination of ephedrine and aminophylline with some sedative may enhance the desired action. Synthetic ephedrine or ephedrine-like products are on the market, and may sometimes be preferred because of the absence of toxic reactions. Aminophylline administered intravenously in doses of 3¾ to 7½ grains is an excellent drug for obtaining relief from attacks of bronchial asthma, and often is more effective than epinephrine. This is especially useful when a patient becomes "epinephrine-fast." Rectal suppositories containing 3¾ grains aminophylline, instilled as often as every six hours, may keep the patient symptom-free or reasonably comfortable during times when asthma is inevitable. The iodides are still very useful in many cases and are usually administered orally in the form of potassium iodide, 15-20 minums three times a day. In more severe attacks, a mixture of equal parts of ether and olive oil may be instilled per rectum with considerable benefit. This is made by whipping together three ounces of ether and three ounces of olive oil, then slowly instilling it per rectum by means of a small-caliber catheter. During major upsets, oxygen or oxygen mixtures with 80 per cent helium and 20 per cent oxygen may be given by tent or through a B.L.B. mask. Hypertonic solutions of glucose, either 50-100 c.c. of 50 per cent glucose or 500-1000 c.c. of 10 per cent glucose in saline, given intravenously either alone or with aminophylline proves to be very effective. Other measures such as saline lavage of the bronchial tree through the bronchoscope, or repeated whole blood transfusions are often very helpful. There are many other forms of nonspecific and palliative treatment but it is not the scope of this paper to deal with all of them. If the routine, as outlined in this paper, is followed, the majority of cases of bronchial asthma will be benefited.

Conclusion

A complete history can give more information regarding the etiologic factors in asthma and other allergic diseases than any other single diagnostic measure. It should be utilized to the fullest extent and much time should be given to obtain the necessary data. In conjunction with other measures which have been outlined in this paper, the underlying clinical offenders can be discovered, and by their elimination the patient can be returned to a better state of health.

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ARMY FIGURES DEPICT MEDICAL PROGRESS

Comparative figures of World War I and World War II are most illuminating and offer convincing proof of advance in the science of medicine and in the efficient organization of the medical department of the Army.

Brigadier General Hugh Morgan is authority for the following comparative figures:

	World War I	World War II
Death rate in wounded	8.1%	3.3%
Meningitis mortality	38.0%	4.0%
Pneumonia mortality	28.0%	0.7%
Dysentery mortality	1.6%	0.05%
Annual death rate per 1,000 for all diseases in the Army, excluding surgical conditions	15.6%	

We have an overwhelming pride in the innumerable acts of heroism of the doctors, nurses, and corpsmen, and in their exhausting efforts on behalf of the sick or wounded soldier. We have great pride in the medical department organization which has projected medical care to the front line and has worked out a system of evacuation of the wounded which has saved thousands of lives. We have a justifiable pride in Amreican Medicine which has provided the Army with doctors of high caliber and proper training, who possess a scientific knowledge that has made the above favorable comparison possible.

The Need for Cancer Education in Secondary Schools

By Frank L. Rector, M.D.
Lansing, Michigan

M.D., George Washington University Medical School, Washington, D.C., 1907; engaged in public health work for many years; made the first complete study of health and medical work in prisons and reformatories in the United States, 1928; Executive Secretary, Chicago Medical Society, 1929; Field Representative American Cancer Society, 1930-1941; Cancer Consultant, Michigan State Medical Society and Michigan Department of Health; Fellow A.M.A., Institute of Medicine, Chicago, A.P.H.A.; Member Executive Committee, Public Health Cancer Association; Honorary Member, A.A. of I.P. and S.

Cancer is a serious disease in childhood. During the past five years it has caused an average of 115 deaths in Michigan under the age of twenty.

Childhood cancer differs from cancer in adults in distribution and symptoms. Pain, fever, anemia and weakness often accompany its onset, and as these symptoms also indicate acute infections, their relation to cancer is often overlooked until too late.

Education of physicians, nurses, teachers and parents is necessary to a better control of cancer in younger ages.

■ CONTRARY to popular opinion, cancer is a serious and not uncommon disease of childhood and adolescence. In 1941 almost two per cent of all cancer deaths in the United States occurred in persons under twenty years of age. In these deaths are included the deaths from leukemia, which is universally recognized as cancer of the blood cell forming tissues, the bone marrow and spleen, although given a separate listing in the International List of Causes of Death.

Many cases of cancer in childhood are overlooked until late stages, for many of the early symptoms resemble those of acute infections. Fever, anemia, weakness and pain are all common symptoms of infections; they also accompany many types of cancer in younger age groups. Because of this confusion in diagnosis, treatment often is deferred until the patient has become hopelessly incurable and only palliative therapy can be employed.

The common types and sites of cancer in childhood also differ from those found most frequently in adults. In general the kidneys, central nervous system, eyes, bones, spleen and bone marrow, are most often involved in cancer in these younger age groups. These same tissues are much less commonly involved in adults.

Cancer in childhood usually runs a rapid course, metastasizing early and widely. Few cases run a prolonged and chronic course. The duration of the illness may be measured in weeks or months in children, compared to years in adults. In general, the prognosis is most unfavorable in children because of the rapid growth and spread of the disease and the delay in seeking medical examination and treatment.

The distribution of cancer in childhood follows rather definite age patterns. During the first five years, embryoma of the kidney, or Wilm's tumor, neuroblastoma, central nervous system tumors, eye tumors and leukemia predominate. During the second five years, few Wilm's tumors are seen, and eye tumors are less common, but brain tumors and leukemia continue to be found quite frequently. During the second decade, bone tumors are found very often, the others mentioned less often, and some of the cancerous growths found most often in adults are beginning to make their appearance.

By this brief analysis of differences in its nature, occurrence and distribution in children as compared to adults, it is seen that cancer in younger age groups is a serious problem demanding serious consideration by parents, school teachers and public health officials, as well as by the medical profession.

The following descriptions of cancerous growths in childhood are not intended to be exhaustive, but rather to emphasize some of the major characteristics, especially those signs and symptoms that would be most evident to public health and school officials who are called upon to evaluate the child's health status. Those who wish a more detailed description of each type of malignant growth are referred to textbooks and other medical literature.

Embryoma of Kidney or Wilm's Tumor

This tumor is seen most often before the fifth year of life. It affects both sexes in equal proportions and is usually confined to one kidney. It is painless in most cases, and usually diagnosed by a swelling over the involved kidney that increases the waistline measurements. On palpation a smooth or slightly nodular tumor is felt that seldom crosses the midline. There is rarely blood in the urine, but there may be a moderate fever of

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101 to 104 degrees. This tumor does not spread to the liver and bones. The lymph nodes and lung are favorite metastatic sites.

The treatment of choice is surgical removal with postoperative irradiation. The prognosis is unfavorable; at least 75 per cent result fatally.

The main diagnostic point to be emphasized in this type of cancer is that of painless, unilateral swelling over the area of the involved kidney.

Neuroblastoma

Next to Wilm's tumor, neuroblastoma is the most frequent type of abdominal tumor found in infants and young children. It often arises from the adrenal medulla, grows rapidly and spreads widely, especially to the liver, lymph nodes, bony orbit and skull; less frequently to the lungs.

The principal symptom is painless abdominal enlargement accompanied by pallor, weight loss and some fever. The tumor mass is usually nodular and crosses the midline. Due to its rapid growth it may soon cause dyspnea, hypertension, constipation and other pressure symptoms.

Treatment is surgical removal with postoperative irradiation. The prognosis is always grave. There are few recorded cures.

As with Wilm's tumor the principal sign is a painless abdominal enlargement, and those caring for or examining children of preschool age should always keep these two types of cancer in mind.

Brain Tumors

Brain tumors, not all of which are of a cancerous nature, occur quite frequently in childhood and adolescence. Many of these have a favorable outlook, provided they are recognized in early stages and are treated by competent neurosurgeons.

Many of these tumors are found in the cerebellum, where they produce both motor and sensory symptoms. While the train of symptoms will depend largely on the brain areas involved, vomiting, headache, and visual disturbances are cardinal symptoms of intracranial pressure. In the very young, hydrocephalus may be seen with separation of cranial sutures. Vomiting is explosive and recurrent and unrelated to taking of food. Muscular inco-ordination is frequently seen with disturbances of sensation. When the sixth cranial nerve or optic tract is involved, visual disturbances will develop. Personality changes are common, especially in older children. A formerly attentive, studious and well-mannered child may develop the opposite characteristics.

A child showing any of the above or related signs and symptoms, should be examined by a competent neurologist rather than be subjected to disciplinary treatment on the basis of his insubordination.

At least 50 per cent of brain tumors are favorable for surgical removal, provided they are diagnosed in relatively early stages before permanent damage to the brain tissue has resulted from pressure of the growth. The remaining 50 per cent, classified as unfavorable, are not suitable for surgical removal, either because they have spread to vital brain areas or to other tissues, or because their location renders removal extremely hazardous, often with a mortality of 30 to 40 per cent. In many of these cases that are subjected to operation there is a fatal recurrence due to inability to effect a complete removal of the tumor at time of operation.

Retinoblastoma or Glioma of the Eye

This tumor is seen most often in infancy and early childhood. The majority of patients with this type of tumor will give a history of similar condition in one or more generations of ancestors. In about 20 per cent of cases, both eyes will be involved, the condition originating in one eye and later involving the other. It is often present at birth, and is one of a very few types of cancer that has a proven hereditary factor.

Dilatation of one pupil and a grayish-white cloudiness of the eyeball—the so-called "cat's eye" appearance—are the two cardinal symptoms of this tumor. There may be enlargement and protrusion of the eyeball. Pain is frequently present, and in children old enough to notice there will be visual disturbances.

Treatment comprises enucleation followed by irradiation. With bilateral involvement, the more seriously affected eye may be removed and the other one subjected to irradiation in the hope of saving the second eye, or at least of prolonging its usefulness.

The prognosis is always grave, and with involvement of both eyes there is great danger of complete destruction of vision even though the patient's life may be saved.

Cancer of Bone

Bone cancers in children occur most often in the second decade of life, and are found more

often in males. Their favorite site is at or near joints of long bones, the knee being a favorite joint for their development.

Pain, swelling, and tenderness at or near the involved joint are cardinal symptoms of bone cancer. Fever, loss of appetite, and "night cries," due to the fact that these cancerous growth are more painful at night, are also common symptoms. It is felt that injury has a more direct relation to this type of cancer than to any other. Many of these patients give a history of rather recent and severe injury to the involved area.

These cancers are often initially diagnosed as rheumatism or "growing pains," and treatment delayed until the condition has become hopeless. Every patient with a history of injury and exhibiting the above-mentioned symptoms should have an x-ray examination of the bone complained of. In far too many cases the x-ray examination is postponed while other and ineffectual methods of treatment are being tried, thus condemning the patient to an early and untimely death.

Treatment consists of excision of the tumor area in the case of benign growths; of amputation well above the tumor site for all cancerous growths. It is unsafe to rely on irradiation alone for any of the malignant bone tumors. Ewing's tumor usually will respond well in the beginning to irradiation, and this has led some physicians to the erroneous conclusion that it could be eradicated by such treatment, only to find it had recurred at a later date with a fatal result.

Leukemia

The acute lymphoid and acute myeloid types of leukemia are found most often in younger age groups.

The *acute lymphoid* type is seen especially in children under the age of ten, and because of similarity of symptoms, it is often confused with acute infections. Arthritic pains with swelling of joints, fever, weakness and anemia, suggest acute articular rheumatism. These joint pains are particularly severe in some cases. Slight bruising and injuries will cause wide-spread bleeding into the tissues. Because of this, anemia is often severe. There may be a mild leukocytosis, but leukopenia is frequently encountered. The spleen and lymph nodes may be moderately enlarged.

An acute infection, such as laryngitis or head cold may initiate the onset.

Treatment is palliative only, as the disease is considered incurable. Irradiation will at times hold the disease in check for varying periods of time. The prognosis is hopeless, death usually occurring in a few weeks or months.

The *acute myeloid type* of leukemia occurs more often after the tenth year of life. The principal symptoms are anemia, fever, and weakness. The onset often simulates a severe infection especially of the upper respiratory tract. There is no leukocytosis in the majority of cases. The spleen may be but moderately enlarged.

Treatment is palliative only, as the disease is incurable. Irradiation is helpful in prolonging life. Prognosis is hopeless.

The diagnosis of these leukemic conditions is made on examination of the blood, the predominating abnormal type of white blood cell indicating the form of the disease present in a given case.

Other Types of Cancer in Childhood

While the types of cancer that have been discussed are found most often in children, cancer in many of their other organs and tissues has been found at times. Cancer of the breast, uterus, gastrointestinal tract, lungs, endocrine glands and skin are among the other types most frequently encountered. Xeroderma pigmentosum, an intensive concentration of pigment in the skin made worse by exposure to sunlight, and neurofibromatosis (von Recklinghausen's disease), are two types of cancer found in childhood and adolescence.

Suggestive skin signs of cancer in children with which all physicians, nurses and school officials should be familiar are the following:

Moles and warts that show changes in size, shape or color due to irritation or prolonged exposure to sunlight. Intense freckling due to short exposures to sunlight—Xeroderma pigmentosum. Swellings in lymph node areas, as groin, axilla, or neck. Pale mucous membranes and sclera, indicating anemia.

Comparative Mortality

Having reviewed the types of cancer found most often in childhood and adolescence, a word about the extent of cancer in these age groups may be in order. Is the disease encountered sufficiently often to warrant special measures for its control? The national vital statistics reports will give some interesting comparisons with other diseases considered of major importance in this

DEATHS FROM CANCER AND CERTAIN OTHER DISEASES
Under Twenty Years of Age
Michigan—1939-1943

Year	Cancer (including leukemia)	Acute rheumatic fever	Diphtheria	Measles	Poliomyelitis	Scarlet fever	Syphilis	Tuberculosis	Typhoid fever	Whooping cough
1939	103	95	19	28	32	54	25	230	9	76
1940	107	56	10	18	54	32	22	214	4	57
1941	131	54	17	65	17	27	24	182	5	90
1942	107	39	21	8	10	17	11	195	1	70
1943	130	58	15	85	21	9	15	180	3	101
Total	578	302	82	204	134	139	97	1001	22	384

younger age group. In the United States in 1941, under age of twenty, there were 1,687 deaths from cancer, and 1,147 deaths from leukemia, or a combined total of 2,834 deaths from these cancerous diseases. As mentioned previously, this is almost two per cent of all cancer deaths that year. During this year, tuberculosis, a notorious killer in early life, claimed 6,069 lives, and whooping cough, also a dangerous disease among young people, caused 3,769 deaths. The following diseases, always considered of great importance in younger ages, gave the following number of deaths: measles, 2,001 deaths; syphilis, 1,405 deaths; diphtheria, 1,182 deaths; acute rheumatic fever, 765 deaths; poliomyelitis, 607 deaths; scarlet fever, 378 deaths; and typhoid fever, 351 deaths. Thus we find cancer ranking third as a cause of death among the diseases most commonly affecting these younger ages.

In Michigan, the place of cancer as a killer of young people is more prominent than in the country as a whole, tuberculosis alone outranking it in the list of diseases mentioned previously. For the five-year period, 1939-1943, cancer consistently outranked each of the other causes of death mentioned by from 154 to 556 deaths.

It may be argued that if it were not for immunization, vaccination and quarantine, deaths from several of these communicable diseases would be much greater. The proposition might also be advanced that if a small fraction of the time, effort, and money now spent by private and official health agencies on many of the other diseases mentioned was spent on the study of cancer in these younger ages, and on educating pupils, teachers, parents, health officials and physicians in the control of the disease by recognition of early signs and symptoms and the absolute necessity for prompt and adequate treatment, a different cancer mortality situation would soon prevail among children and adolescents.

A person is as dead from cancer as from any other cause, and society suffers as great a loss by such deaths as it does by deaths from tuberculosis, poliomyelitis, or syphilis, for example. I would not suggest for one moment any decrease in any part of the program for control of any of the common communicable diseases; but would urge that increased emphasis be placed on the control of cancer in these younger age groups.

Control Measures

As many of the cancerous growths discussed in this paper occur in early life and before the habits of the patient have been able to influence their development, they offer much less chance of prevention than do many types of cancer in adults. Control rests largely on their recognition and proper treatment in early stages. Their recognition in early stages will be facilitated by an appreciation of the fact that cancer can and does occur in younger age groups; that a knowledge of major signs and symptoms of the types of cancer encountered in these ages is essential to early recognition; that prompt diagnosis of suspicious conditions with prompt and proper treatment as soon as cancer is found will go far toward saving the patient's life.

Health officials, especially those coming in close and frequent contact with children and adolescents, the medical profession, school authorities, and parents all should keep these facts in mind. Unless this is done, cancer is almost sure to take an increasing toll of lives of these future citizens.

The subject of cancer education in secondary schools was discussed at this same meeting a year ago, and the very sound and reasonable arguments in its favor advanced at that time need not be repeated or reviewed here. To anyone who has given any thought to the subject, the value of such an educational program as a general health-promoting and life-saving undertaking is unmistakably clear. Your essayist can only hope that the points emphasized in this paper will focus attention of education and health workers more directly on this problem.

Penicillin in Ophthalmology

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Penicillin is very efficient in treating conjunctivitis, especially gonorrheal conjunctivitis and orbital cellulitis as well as any other form of infection around the mouth and neck. It is a marvelous drug in the treatment of meningitis. In deep infection of the eyes such as iritis, uveitis and retinochoroiditis it is of no value since there is very little penetration of the eyeball by penicillin. This drug may be used with sulfadiazine, frequently with improved results. Intramuscular injection is the most satisfactory for all purposes. In meningitis, additional injections intrathecally should be used. Locally, it may be used in strength of 500 to 800 units per c.c. or better, in the form of ointment made fresh for each case and kept in a refrigerator.

■ THE practice of medicine has made more progress in therapeutics in the last 35 years than in any century in the world's history. Prior to our time quinine in malaria was revolutionary. Then came Ehrlich with salvarsan, Bunting with insulin and then the sulfa drugs.

In 1877 Pasteur observed that the infective power of the anthrax bacillus was greatly reduced when it was contaminated by certain saprophytic bacteria. This showed an antagonism between different microbes.

In 1929 Fleming observed that a strain of a fungus penicillium motatum growing on agar plates inhibited the growth of pyogenic cocci. The active principle of this antagonism was found to be what is now called penicillin. It is particularly effective against Gram-positive organisms. Broth containing penicillin was injected into mice and was no more toxic than plain broth. Nothing much more was done with the product until Chain and his associates published their work in the *Lancet* in 1940. At first only small quantities could be produced. Its results in clinical practice were so striking that it became apparent that mass production was very necessary. It takes about 100 liters of the medium to produce 1 gm. of therapeutic penicillin. The greatest precautions must be taken against contamination, as certain bacteria can greatly reduce the production of penicillin. It is easily destroyed by acid reactions, but is fairly stable in the sodium or barium salt.

You have probably all seen pictures of the large scale production facilities in some of our drug manufacturing plants. The purified penicillin is capable of inhibiting the growth of staphylococcus aureus at a dilution 1:24,000,000 and 1:30,000,000. The standard of activity is the Oxford unit which is the amount of penicillin per milligram just capable of inhibiting a growth of staphylococcus aureus dilution of 1:50,000.

The beauty of the drug is that it seems to have no serious toxic effects, Hobby and her associates were unable to detect any destruction or absorption of penicillin by the organism. Penicillin is not inhibited by serum, tissue extracts or products of tissue breakdown.

The lethal toxicity of penicillin is much less with the more refined preparations. In mice, a single intravenous dose of 30,000 units or daily subcutaneous doses of 192,000 units per kilogram precipitated severe toxic reactions, such as restlessness, a fall in temperature, watering of the eyes and dilatation of the venules of the ears and at the corneoscleral junctions. Four out of ten of the animals died. In humans a single dose of 200,000 units was given with no toxic symptoms.

The penicillin is grown in a modified brown sugar medium. The penicillin formation begins about the fifth day and reaches its peak on the eleventh to the thirteenth day. The presence of zinc was demonstrated to be of major importance both in the growth of the mould and the production of penicillin. Foster believes that the zinc acts as a catalyst to the oxidation and utilization of glucose by the mould, thus preventing the formation of gluconic acid which causes a drop in the pH of the medium.

Penicillin was readily absorbed in animals after intramuscular or subcutaneous injection, and from the small intestine. It could not be given by mouth because the acid of gastric juice destroyed it, or by rectum, as the bacteria present there inactivated it. It was largely excreted, still in an active form, in the urine of the mouse, rabbit and cat, and to a certain extent in the bile and saliva; *not* excreted in tears or pancreatic juice of cat.

His observations agreed with Fleming's in that it was found that the action of penicillin was bacteriostatic, in that it merely inhibited the

growth of organisms and did not kill them quickly.

It was found that pus, tissue autolysates, blood and serum had no inhibitory effect on the activity of penicillin.

Their "mouse protection tests" established the fact that with appropriate dosage almost complete protection was afforded to batches of mice infected intraperitoneally with lethal doses of streptococci and staphylococci and intramuscularly with Clostridium septique.

Their first injections in the human subject disclosed that there was some substance present in the crude penicillin preparations that caused a rigor and sharp rise in temperature. The pyrogenic effect was due not to the penicillin but to an impurity which could be and was removed.

Rammel Kamp and Kufer found that when the drug is given intravenously in 40,000 units, the peak of inhibitor level of 2.5 units per cubic centimeter of serum took 185 minutes to fall to a subinhibitory level; whereas with 5,000 units, the peak concentration was only 0.156 units per c.c. and fell to a subinhibitory level in thirty to forty minutes.

The amount of penicillin that penetrates the blood cells is exceedingly small and is usually less than 10 per cent of the plasma concentration.

Penicillin is largely secreted by the kidneys, but the percentage recovered in the urine varied from 37 to 99 per cent. After intravenous injection, the urinary excretion was almost complete in one hour. After intramuscular injection the slower absorption was reflected in longer time before the drug was found in the urine. It is not known what happens to that portion of the drug not excreted by the urine.

Following systemic administration penicillin does not readily penetrate the spinal fluid. The injection of 10,000 Florey units intrathecally into a normal individual caused a penicillin concentration in the spinal fluid at six hours of 25 Florey units per cubic centimeter. The level then dropped rather sharply until about the eighteenth hour when it flattened out considerably, reaching its base line in seventy-two hours. In patients with meningitis rather more rapid absorption of penicillin from the spinal fluid was evidenced by the fact that appreciable quantities of the drug were detectable in the blood for some hours after the injection. In all instances the intrathecal injection of penicillin caused an increase in the cell count of the spinal fluid. This increase only lasted a few days, but this fact must be borne in mind when making intraspinal injections.

The stability of penicillin solutions has increased with a purer product. The manufacturers advise keeping the solution in a refrigerator (under 5 c). Wm. Kirby of San Francisco ran some experiments showing that the potency is maintained at room temperature for seven days. However, it is probably safer to keep the solution in a refrigerator.

In as much as we all have a limited experience with the drug, experience in other fields must be drawn upon. Penicillin is miraculously effective against the gonorrheal urethritis. It was found that small doses of penicillin in combination with moderate doses of sulfathiazole appears to increase the effect of each other against the Neisserian infection. Whether this effect is due to a true synergism between the drugs is not certain. It may be that some of the patients were more easily cured by penicillin, while others were more susceptible to the sulfa drugs. Those who were resistant to the sulfa drug make more rapid progress under the combined therapy than under penicillin alone.*

In the San Diego Naval Hospital a short dosage schedule was found to be just as effective as a longer one. 100,000 units over a fifteen-hour period was consistently curative, giving negative smears in six hours with no apparent relapses.

The U. S. Army Corps reports that 95 per cent of all male patients receiving 80,000 units or more are permanently cured.

Walter Griffey reports a case of gonorrheal urethritis and gonorrheal conjunctivitis with positive smears for the gonococcus in both the eye and the urethra. 25,000 units of penicillin sodium were injected intramuscularly every three hours for a total of ten injections. Hourly smears and cultures from the eye were made. After five hours the eye smears were negative. The urine was free of gonococci in five and one-half hours. The only other medication used was 1 per cent atropine sulfate.

The way gonorrheal urethritis clears up under penicillin is little short of miraculous. Miller and Scott of Chicago report twenty-one cases all cured by penicillin. It made no difference whether they were recent or old cases and treated or untreated. The interval between the onset of the treatment and the first negative culture varied from one to

six hours with an average of three and three-fourth hours.

Two cases were treated by the local injections of penicillin into the urethra but the results were negative. Likewise when the patients did not urinate when under treatment the cure was effected in the same time. This proves that the penicillin is brought to the tissues by the blood stream, not just by the urine flowing over the urethra.

In 1750 cases of gonorrhea reported to the U. S. Navy Bureau of medicine and surgery by sixteen naval hospitals, one course of penicillin produced bacteriological and clinical cures in 97.2 per cent. An additional course of treatment brought the final figure to 99 per cent. The intramuscular route was somewhat better than the intravenous.

Thrombophlebitis of the cavernous sinus was usually a fatal condition prior to the advent of chemotherapy. Today many cures are being reported. MacNeal, Frisbee and Blevins reported forty-five cases of thrombosis of the cavernous sinus, of which fourteen cases survived under bacteriophage therapy alone; 23 died within five days and in eight cases they died after a prolonged illness.

In 1941 Schall reported 3 cases cured with sulfonamide compounds and heparin using from 580,000 units of heparin down to 130,000 units in his last case: 1,000 units of heparin solution being equivalent to 10 mg. of heparin. David Edelson in the April *Archives of Ophthalmology* reports a case of staphylococci thrombosis of the cavernous sinus cured by sulfathiazole and sulfadiazine, with 45 c.c. of heparin 10 mg. or 1,000 units of heparin diluted in 750 c.c. of isotonic solution of sodium chloride.

Major Pyle reports a case of contact dermatitis in the medical officer who had charge of making the various dilutions. The firm producing penicillin report "The mould in growing on this medium produces a number of substances in addition to penicillin and the purification process at present utilized results in a content of penicillin varying between 20 to 40 per cent, the remaining material consists of extractives soluble in organic solvents which occasionally produce urticaria and vary from batch to batch of the material."

A solution of penicillin was found by Robson and Scott to be quite effective in the treatment of experimental eye lesions produced by a very virulent strain of staphylococcus aureus in rabbits. The strain of organisms invariably caused ulceration of the cornea and producing hypopion in some ninety of the cases. Local applications were commenced one hour after inocculation and were continued hourly for forty-eight hours and thereafter at less frequent intervals. The penicillin solution was much more effective than a 30 per cent solution sodium sulfacetamide or a 15 per cent solution of solubilized sulfathiazole.

In meningitis there are conflicting reports. Pilcher and Meacham found little, if any, beneficial effect in experimental staphyloccal meningitis in dogs. This may have been due to inadequate dosage. Following intrathecal administration even in small doses, the mortality rate fell from 93 per cent in control animals to 54 per cent in treated animals.

Col. H. H. Kennedy reports wonderful results in meningitis, starting with intravenous injections, intraspinal once or twice a day for the first two days, then once a day. Intramuscular injections were given every three hours around the clock. He used 100,000 units the first day, 200,000 units in the second twenty-four hours if the case was not responding. One may use 400,000 units per day. Treatment is kept up for five to seven days.

Capt. McCarthy reported seventy-nine cures out of eighty cases of meningitis. As a rule 250,000 units were used. The dark brown penicillin is more irritating and more apt to cause intracranial irritation.

Against pneumococci penicillin is highly successful. Tillett has reported a series of 46 cases of pneumonia, with bacteremia in 14, in which rapid recovery occurred in thirty-nine, death occurred in three cases. The earlier reports of pneumococcal meningitis were not so favorable, only one-third of twenty-one cases recovering. However, with more adequate dosage, a more purified product and intrathecal injections, the rate of recovery was much more favorable.

Penicillin used locally was found effective by Von Sallman in checking experimental intraocular infections in rabbits caused by pneumococci types III, VII, X.

Cashell, in the *British Medical Journal*, March 25, 1944, found good results with penicillin in acute conjunctivitis and blepharitis, chronic blepharitis, infected corneal ulcers, perforating corneal injuries with risk of intraocular infection.

He used it in the form of drops and in an ointment base, 500 units per gram. Irrigations of the anterior chamber were carried out in interior infections. The calcium and sodium salts have been well tolerated in the eyes.

The sodium salts should not be used in the dry state, as they cause considerable pain.

Penicillin is supplied in ampules of 10,000 and 100,000 units each, the larger size being cheaper and preferable. It may be dissolved in normal saline so that the final concentration is 5,000 units per cubic centimeter. It should be stored in the ice box under strict aseptic precautions. It may be given intravenously or intramuscularly or the two may be combined. Continuous intravenous drip is used, 25 to 50 units per c.c., so that 2,000 to 5,000 units are given every hour. Most of the men prefer the intramuscular method, given around the clock, using 15,000 to 25,000 units every three hours.

When injected into the spinal canal 10,000 to 15,000 units diluted in normal saline so that each cubic centimeter contains 1,000 units should be given twice a day. The question of how long treatment should be continued is up to the attending physician. It is better to give too much rather than too little.

Laboratory tests to titrate the inhibiting power of the blood should be used where available.

There is a tendency for staphylococci to develop a fastness to the drug, unless the dosage is adequate. This is more apt to develop in the first week, according to Lyon.

W. E. Herrell reports a dramatic cure of a fulminating cavernous sinus thrombophlebitis in which sulfathiazole and heparin had failed. All cases of extensive cellulitis of the mouth recovered under penicillin.

Hemolytic streptococcal infections are also curable by penicillin although not as many cases have been treated as staphylococci. Some forms are found to be resistant, most commonly in the viridans group. Fleming reveals that following strongly bacteriostatic and retains this power intrathecal injections the spinal fluid becomes for one to four days.

In early syphilis, the use of penicillin is very encouraging, according to Mahoney of the Marine Hospital, Staten Island. The cases treated all received 1,200,000 units. The cases of four recently infected male patients, each with a single penile ulceration showing the treponema pallidum, were given intragluteal injections of 25,000 units every four hours, night and day, for eight days. After the sixteenth hour of treatment no spinal forms of treponema were seen under Darkfield examination in scrapings from the chancres. Serologically they became negative. Observation of this group of patients is continuing and the results continue encouraging in an increasing series of patients.

Bloomfield and his associates also report good results with penicillin in seven cases of early syphilis. However, these authors stress the fact that it is too early to draw definite conclusions. The general opinion is that penicillin is of value in early syphilis but is not of so much value in later stages.

The Oxford group report cures of conjunctivitis, as does Florey's. A penicillin ointment is made by dissolving the powder in distilled water and incorporating it in vaseline in a strength of 600-800 units per gram. In the majority of the cases treated, the predominating organism was the staphylococcus aureus and a high percentage of cures was effected. Corneal ulceration healed in from five to seven days. One case of gonorrheal ophthalmia neonatorum that resisted the sulfonamides was clinically cured in two days. Blepharitis took from two to twelve weeks for a cure.

My own experience with penicillin has been limited but very interesting.

My first case was a young girl, aged eight years, with a complete atresia of the right nostril. The posterior nares appeared open. She had been operated by another rhinologist, but he was unable to get an opening. I operated her at Grace under ether, cutting the adhesions loose from the septum, so as to leave the cartilagenous septum well covered. There was a bony obstruction that was very dense a little over half way back, which required removal with the Grünwald punch forceps. No opening was made into the ethmoid cells and there was none of the mucoid secretion that is usually present in the congenital posterior obstructions. The parents insisted on taking the patient home the following morning when I saw them at the hospital the evening of the day of the operation. She seemed well so I gave in. However, I did not see her the next morning when I learned later that the right eye was quite swollen. Two days later the father phoned me and said that the child had been perfectly well but became unconscious that morning. I had them bring her into the hospital at once. Her temperature was 107° rectal on admission. She was unconscious and there was a marked neck rigidity and positive Kermig. The right eye was swollen shut, the lids were red and

there was a marked orbital cellulitis. A spinal fluid examination was ordered with instructions to follow the withdrawal of the spinal fluid with an injection of 15,000 units of penicillin intrathecally repeated twice a day. The first spinal fluid showed 600 cells per c.c.m., 80 per cent polymorphonuclear leukocytes, 20 per cent lymphocytes, the fluid clear with a trace of globulin and + albumin. And then came the jolt. The Kahn and Kline were both 4+ positive and the gold curve was also positive. No organisms were found in the smear and the cultures were all negative. She was given one intravenous injection of 25,000 units and then 15,000 units of penicillin intramuscularly every two hours. It is quite remarkable how little the patients object to the intramuscular injections. However, that doesn't go for the intraspinal injections, so after a few shows they were given intraspinally just once a day, then after one week the intrathecal injections were stopped. By this time the spinal fluid was reduced to twenty-nine one day and eighty-four the next day. The intrathecal injections of penicillin raises the cell count so I regarded this count as normal. After three or four days the patient recognized me and called me by name.

She was given a total of 2,500,000 units of penicillin. This child looked terribly sick when first seen, but 600 cells is a very moderate cell count for any meningitis. The orbital cellulitis looked very vicious, but it was not necessary to do any surgical drainage.

She was subsequently given bismuth intramuscularly and later will be given a course of arsenicals by her family physician, who, by the way, had never suspected syphilis in the family. The mother did have a cervical ulceration and her blood was 4+ Kahn and Kline positive.

Vision in the eye is 20/20; there is 1° left hyperphoria and 2° exophoria at the distance. She can move her eyes perfectly in all six cardinal directions. In spite of all the penicillin she still had a positive 4+ reaction.

My second case had a very complicated history. He is a male, aged sixty-seven, an allergic patient, having had hay fever for years with some asthma. He came in February 24, with an injected right eye, a typical acute conjunctivitis with a lot of muco pus in the eye. He was given zinc sulphate and 10 per cent sulfathiazole ointment. He developed a skin irritation four days later and I suspected an allergic reaction to the sulfathiazole which was stopped. The next day it was quite apparent that he had an erysipelas. This was treated with epsom salts locally, sulfadiazine internally. In the course of two weeks this skin condition cleared up. He then developed an iritis and there were some iritic adhesions. On pushing the atropine he complained that he could not urinate. I suspected a prostate enlargement and wanted it examined. He insisted on going to his family physician who said the prostate was normal. However, two days later he referred him to Dr. Fred Cole who found a very large prostate which he subsequently operated very successfully.

He subsequently had pollen shots for his hay fever. The iritis cleared up but he continued to have a stringy mucous discharge from the conjunctival sac of the right eye. On June 3 he again abraded the cornea of the eye in his strenuous efforts to clean out mucus from the eye. There were a lot of folds on Descemet's membrane but this cleared up under sulfamerazine and local treatment. However, the ropy discharge continued.

A culture of the conjunctiva showed staphylococcus aureus. I then gave him some penicillin locally but urged that he go to the hospital for a course of treatment with penicillin internally. This was refused. He had an allergic reaction in the lids to the local use of penicillin and then, fearing another attack of erysipelas, you could not keep him out of the hospital. He wanted the treatment at once. I gave him 1,000,000 units intramuscularly, in 20,000 unit doses. That was the end of his conjunctivitis. This case ran from February 24 to August 3, with the conjunctivitis continuing in spite of everything I could think of. He cleared up perfectly under penicillin internally. The pupil dilated perfectly with no adhesions and vision is 20/20, there being some nuclear opacity.

A third case was a conjunctivitis in an old blind eye with dense corneal scars. A hypopion ulcer developed which cleared up under phenol cauterization and sulfadiazine, sulfathiazole ointment, atropine and other local treatment. However, the condition returned. I took him to Grace Hospital and gave him 1,000,000 units of penicillin in 20,000 unit doses every three hours. We used penicillin locally but soon got a marked eruption of the lids and had to stop it. I could see no benefit from the penicillin.

Subsequently he had all his teeth out and a vaccine made from the infecting organisms did him a lot of good. However, it remains to be seen how long this old blind eye will remain quiet. In others words, my lesson from this case is that penicillin is not a cure-all and infections must be removed.

My next case to report is a case of sympathetic ophthalmia in a woman, aged sixty-two, who had a cataract extraction up in the state. The eye developed considerable reaction in the cornea, exudate in the aqueous and circum corneal injection. Subsequently she developed a sympathetic ophthalmia in the second eye. There were large K.P. spots on the posterior corneal wall, No. 3 specks floating in the aqueous humor and the lens. There was a secondary increased tension. The jaws were edentulous. An x-ray showed no retained roots, and the sinuses were clear. There was a well advanced central nuclear cataract.

She was hospitalized and given penicillin, 20,000 units intramuscularly every three hours for a total of 2,000,- units. There was considerable improvement in her ocular condition, but there were still some floaters in the aqueous and the K.P. remained although I believe they were smaller. Vision improved but declined when the tension again went up. Paracentisis of the cornea will be necessary. It is too early to evaluate the effect of penicillin in this case. My impression is that she was improved, but by no means cured.

My last case was a recurrent case of iritis. This

patient had been thoroughly checked at the Mayo Clinic and at Ann Arbor. All that could be found was an arthritis of the spine. There was some decay under a filling in a lower incisor but otherwise the teeth were negative. His brother-in-law had started him on penicillin before I was called in. I could see no particular benefit from the penicillin in this case. I can get much better results with sulfadiazine. However, the removal of foci of infection gives still better results in cases of iritis.

Conclusions

My results with this wonder drug show that in selected cases it is really miraculous. However, it is no substitute for an accurate diagnosis. In orbital cellulitis, thrombophlebitis and meningitis it surpasses expectations. In uveitis it does not seem to be of much value. In conjunctivitis of a stubborn nature it certainly is worthy of a trial. My very limited experience with its local use showed that it is apt to develop a dermatitis of the eyelids. However it has been successfully used by many in blepharitis and conjunctivitis. To date no firm I am familiar with makes an ointment that retains its potency. This must be made up by your pharmacist.

MSMS

Spontaneous Hypoglycemia

A Case History

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It is very important to be familiar with the symptom complex presented by the group of Spontaneous Hypoglycemias and the pathologic physiology underlying them in order to be able to arrive at an etiologic diagnosis in each case. A most interesting case history is presented which illustrates one of the types and a plan of procedure is outlined to differentiate the various types and suggestions made for the Medical management of the case presented.

THE case which we are presenting belongs to the group of spontaneous hypoglycemias and offers a problem in the differentiation of their etiology. The history shows some very interesting facts and draws attention to a symptom complex which we will do well to bear in mind continually. It is most important to determine the etiology of these cases in order to apply the proper treatment to any individual case.

Case Report

The patient, a thirty-six-year-old white man, was admitted to the Mt. Carmel Mercy Hospital through the emergency room with a superficial laceration of the left upper eyelid. When first seen, he was standing, and was swaying as if mildly intoxicated. However, he had partaken of no intoxicating beverages for some time. During the suturing of his eyelid, he repeatedly complained of extreme weakness and fatigue. He said he had retired about 11:00 P.M., slept for one hour, and then had arisen to go to the bathroom. While on the way, he suddenly felt weak and fell to the floor unconscious. While in this state he voided. His wife who heard him fall, said he was unconscious for about five minutes, during which time he lay motionless. Apparently, he regained consciousness spontaneously, after which he felt very weak. He then came to the Hospital for treatment of the eyelid, which was injured in his fall.

The patient stated that he has been having these weak spells for the past three years. Their occurrence was, at first, about one week apart, but they had become progressively more frequent until for the past six months they occurred almost daily. These spells were described as "waves of weakness, fatigue and giddiness." True vertigo was never experienced. During these attacks, the patient frequently would feel cold and clammy. The attacks practically always occurred in the morning after breakfast. The exact time interval could not be ascertained, but was about one to one and one-half hours after breakfast. They never occurred prior to breakfast, despite the fact that many times breakfast was delayed. The patient offered the information that, frequently, at the onset of an attack he would stop whatever he was doing, and eat a candy bar or piece of pie or cake. This always afforded relief from the distressing symptoms. He never lost consciousnes, however, before the attack which led to his admission to the hospital. There were no apparent sequelae. He was discharged from the U. S. Marine Corps at the age of twenty-four, because of "extremely high blood pressure." He states that he had high blood pressure as recently as five years ago. The patient had been working fifteen or sixteen hours a day for the past few years. However, he has had to decrease this in the past few months because of his illness. His type of work was executive, but occasionally involved heavy work. There were no other significant points in the patient's past history. There was nothing clinically significant revealed by examination of the various systems.

The patient appeared to be a well-developed, and

well-nourished man, not acutely ill. The pulse rate was 76, regular, and of good quality. The blood pressure was 130 systolic, 90 diastolic. Temperature 98.6. Respiration 19.

Eyes: the pupils were round and equal, and reacted well to light and accommodation. Fundoscopic examination showed: normal disc, arterio-venous nicking, increased arterial light reflex, arterio-venous ratio of three to one, no hemorrhages, petechiae, or exudate.

There were no apparent abnormalities of the ears, nose, mouth, throat, or neck. The heart, lungs, and abdomen were normal in all respects, as were the extremities. The skin was devoid of pathology except for a small papular eruption which had been present for several years.

Laboratory Findings: Complete Blood Counts were done on April 27 and April 29, 1944, and were both found to be normal.

Urinalysis: Specific gravity 1.028, negative for pathologic findings.

Fasting Blood Sugar: April 28, 1944—86 Mgm. per cent.

Glucose Tolerance Test:

	April 28, 1944	May 1, 1944	May 3, 1944
Fasting	81	74	84
½ hour	153	150	182
1 hour	207	124	148
2 hours	171	106	108
3 hours	68	92	75
4 hours	36*	76	74
5 hours	52	79†	78
6 hours	—	96	—

*At the time blood was drawn for this sample, the patient complained that he was having a typical attack of weakness as described in the history above.

†Patient given 1 c.c. of adrenalin to note effect on blood sugar level.

X-ray examination of the chest showed an old calcified lesion in the left apex. Otherwise it was negative. That of the skull showed no pathology involving the Sella Turcica.

A flat plate of abdomen revealed no calcifications in the suprarenal areas.

The patient's stay in the hospital was uneventful except for the typical symptoms experienced during the first glucose tolerance test. These symptoms did not recur during the two subsequent tests. A discussion concerning this fact will be found later in the paper.

A diagnosis of functional hypoglycemia was made and the patient was discharged and put on the following regime: 1860 caloric diet of high protein type; 150 gms. of CHO; 90 gms. of protein; 100 gms. of fat. Regular mealtimes; regular sleeping hours; vitamin B-1 by mouth. Patient instructed to drink a two-egg eggnog before retiring. This was in addition to the above diet.

It has been six months since this patient was discharged, and he has had only one recurrence of weakness. This occurred while he was doing muscular work, which tends to stimulate insulin production and deplete the body carbohydrates. The patient says that he feels better than he has in several years, and has gained ten pounds in the past six months. He has been free of distressing symptoms except for the one special occasion noted above.

Discussion

It is not our intention in this paper to go into all of the intricacies of carbohydrate metabolism, many of which are not fully understood, nor to discuss all of the types of hypoglycemia, but rather to re-emphasize a plan of procedure, by which a case of hypoglycemia may be classified as regards etiology.

The discovery of insulin in 1922 by Banting and Best gave an opportunity for the study of the symptoms of hypoglycemia resulting from the giving of an overdose of insulin (exogenous) and a correlation of these with the similar symptom complex produced by endogenous causes.

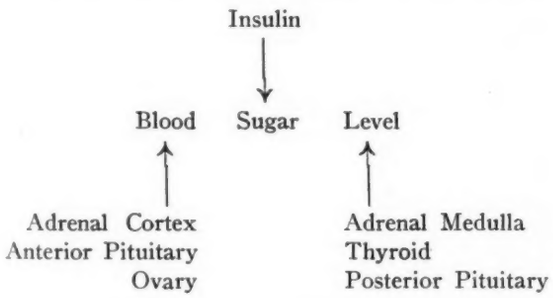
The symptoms, regardless of their etiology, are very characteristic as exemplified by this case and vary with the degree of hypoglycemia. The principal ones are weakness, nervousness, hunger, palpitation, sweating, visual disturbances, and mental confusion and in the more severe cases include vomiting, diplopia, convulsions, coma, and death. These symptoms are found to be associated with a very low blood sugar and are dramatically relieved by the administration of glucose.

The symptomatology of hypoglycemia has as its basis the lowered metabolism of the brain. As is well known, the brain derives its energy almost entirely from the oxidation of glucose, in contrast to most other tissues which may also metabolize fat for energy. Thus, as hypoglycemia occurs, brain metabolism decreases, due to lack of available glucose; then the chain of symptoms begins. Because the higher centers of the cortex are affected first, there develop anxiety, mental retardation, sweating, muscle weakness, tremors; loss of consciousness and muscle spasms may follow. The medulla is the last center involved and here vital functions such as respiration are affected. The mechanisms whereby hypoglycemia causes death and the action of glucose in producing restoration remain only partially solved. It has been shown experimentally in dehepatized animals in which hypoglycemia was recognized as the cause of death, that respiration always stopped before the heart and that artificial respiration will prolong life. All the major symptoms that appear in hypoglycemia are due to

functional alterations in the central nervous system. The discernible effect of glucose is to restore function to the brain, which requires mainly glucose to carry on its metabolism.

As is true of so many of the functions of the body, the blood sugar level is regulated by two opposing systems, one of which tends to elevate it, namely, the para-sympathetic insulin system and the other which tends to lower the blood sugar, namely, the sympathetico-adrenal system. There are many complex features influencing each of these systems. However a delicate adjustment between them results in a normal blood sugar level. The newer concepts of diabetes as shown by Conn, indicate what a powerful influence the pituitary, thyroid and adrenal have in elevating the blood sugar level and counterbalancing the hypoglycemic tendency of insulin.

Graphically this system of checks and balances might be diagrammed as follows:



In this diagram it will be seen that the effect of insulin is to lower the blood sugar level, while that of the glands listed below tend to elevate this level. There are, of course, many other factors which influence the end results. There are a host of etiologic factors which may contribute to hypoglycemia, which we list as follows:

ETIOLOGIC CLASSIFICATION OF SPONTANEOUS HYPOGLYCEMIA (CONN)

1. ORGANIC: Recognizable anatomic lesion
   (a) Hyperinsulinism
      (1) Pancreatic island cell carcinoma
      (2) Pancreatic island cell adrenoma
      (3) Generalized hypertrophy and hyperplasia of islands of Langerhans
   (b) Hepatic Disease
      (1) Ascending infectious cholangiolitis
      (2) Toxic hepatitis
      (3) Diffuse carcinomatosis
      (4) Fatty degeneration
      (5) Glycogenosis (Von Gurke Disease)
   (c) Pituitary hypofunction (anterior lobe)
      (1) Destructive lesions (tumors, cysts)
      (2) Atrophy and degeneration (Simmonds disease)
      (3) Thyroid hypofunction (secondary to pituitary)
   (d) Adrenal hypofunction (cortex)
      (1) Idiopathic cortical atrophy
      (2) Destructive infectious granulomas
      (3) Destructive neoplasms
   (e) Central nervous system lesions of brain and brain stem.
2. FUNCTIONAL: No recognized anatomic lesion
   (a) Hyperinsulinism (anatomic nervous system inbalance)
   (b) Renal glycosurea (Low renal threshold for dextrose)
   (c) Severe continuous muscular work
   (d) Pregnancy and lactation

Of all these listed above, the commonest types seen fall into three classes: (1) organic hyperinsulinism, (2) liver disease, and (3) functional hyperinsulinism or failure of the neuroendocrine system.

Of these, the first two are organic, while the latter is functional in nature.

It has been estimated by Wilder and others that 80 to 90 per cent of all cases of spontaneous hypoglycemia fall into one of these three groups and of these by far the largest is that of functional hyperinsulinism.

Also, in classifying hypoglycemia from a point of view of the clinical behaviour, the various etiologic types may be divided into two broad groups, namely, the stimulative hypoglycemias and the fasting hypoglycemias.

Functional hypoglycemia is one of the stimulative types while the organic types (hepatic and true hyperinsulinism) belong to the latter group.

The principal problem appears then to differentiate between organic and functional hypoglycemia. In arriving at such a differentiation, the following are important aids in an etiologic diagnosis, according to Conn.

1. THE FASTING BLOOD SUGAR.—When the previous diet has been normal a depression of the postabsorptive blood sugar value (taken before breakfast) below fifty mgms. per cent means organic hypoglycemia with few exceptions. Functional hypoglycemia is not associated with low levels of fasting blood sugar. This is an important differential point. It may be noted that in our case the fasting blood sugar was not abnormally low.

2. DEXTROSE TOLERANCE TESTS.—When these are preceded by a standard preparatory diet containing 300 gms. of carbohydrate, they show, in liver disease, a high plateau type of glucose tolerance curve, similar to that seen in diabetes mellitus, with the exception that the fasting level is usually abnormally low.

3. TESTS OF LIVER FUNCTION.—Multiple tests are recommended inasmuch as one function may be damaged while others are unimpaired.

4. CLINICAL TEST.—In organic types the disease tends

to progress and get worse. The functional types show periods of severity alternating with remissions and attacks are of short duration and clear spontaneously.

5. Response to Insulin and Epinephrine.—The former is of very little value but the latter may help to differentiate the hepatic type.

In the case presented we can rule out as etiologic factors organic hyperinsulinism and liver disease. There is nothing in the history or examination to indicate severe liver pathology. The glucose tolerance curves are not those seen in liver disease. The patient was not suffering from organic hyperinsulinism because the fasting blood sugar was not low and the glucose tolerance curve was not that of a hyperinsulinism. Thus, the patient's hypoglycemia must be due to a defect in the neuro-endocrine system, and is therefore functional; however, by a process of elimination organic involvement of any of the endocrine glands may be ruled out as follows:

Pituitary Gland
1. There is no evidence of pathology in sella turcica;
2. There is no evidence of anterior pituitary defect;
3. There is no evidence of posterior pituitary defect and if present alone, it probably would not cause hypoglycemia severe enough to produce symptoms.

Adrenal Cortex
1. The patient's hypoglycemia is not constant
2. Fasting blood sugar is not low
3. The patient proves he can convert protein to carbohydrate by therapeutic test
4. No other evidence of adrenal cortex involvement is present and hypoglycemia in adrenal cortex insufficiency occurs usually only in the severe cases with crisis.

Adrenal Medulla
1. Usually fatal if involved organically to any significant degree

Thyroid Gland
1. There is no clinical evidence of dysfunction of this gland

There are several points of interest in regard to the case presented which should be discussed. First of all, there is no definite evidence that the patient has any organic pathology involving the organs concerned with blood glucose metabolism. The patient does not present a psychoneurotic picture. He did not have false attacks of symptoms, when hypoglycemia did not occur. However, when hypoglycemia did occur, the patient had an attack with the typical symptoms of which he complained. Thus we may draw the conclusion that this patient's symptoms were positively due to hypoglycemia; also, that this state is not associated with organic pathology determinable at our present level of knowledge and understanding.

Another significant point is that hyoglycemia did not always occur following a carbohydrate meal. This would tend to support the view that organic pathology is not a factor here. This variation in reaction would fit in with a functional disturbance. A factor that cannot be ignored is the poor hygienic life which this man was living. He was working very long hours in a job of responsibility, eating irregularly and poorly, and his sleeping habits were faulty. The first glucose tolerance test has already been pointed out. This was done on the day after admission. In contrast to this, glucose tolerance tests three and five days after admission failed to show the typical hypoglycemia. It must be remembered that during these hospital days, the patient was eating balanced meals at regular hours, resting, and sleeping regularly. Apparently, then, a part of this man's illness may have been caused by poor living habits. However, there are thousands of persons with as poor living habits who do not develop hypoglycemia, but in this case they appear to be a contributing factor.

One thing which is very difficult to explain is the lack of hypertension, despite a definite history of same and a Grade II retinopathy at the age of thirty-six. However, since the etiology of hypertension is unknown, it is impossible to evaluate this factor.

A very important point is that this patient responded immediately to the therapy instituted. He has remained symptom-free for six months, except for the incident noted.

In conclusion, therefore, it may be stated that this patient has a functional imbalance of the neuro-endocrine control of blood sugar metabolism, resulting in states of spontaneous hypoglycemia. The patient has been rendered symptom-free for a period of six months by means of a high protein diet and a hygienic mode of living.

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Michigan Medical Foundation

The Michigan State Medical Society has created the "Michigan Foundation for Medical and Health Education" based on the carefully considered pattern developed by the Postgraduate Foundation Committee. Months of detailed study preceded final approval of the project and incorporation of the Foundation to perpetuate health education in this State.

The purposes of the Foundation graphically illustrate the broad scope of the State Society's latest progressive venture: "To acquire, provide, use, develop, endow, and finance methods, means and facilities for postgraduate education in medicine, for education in medicine, for lay health education, and for research, fellowships, and scholarships."

Any high-minded activity, designed to benefit the public, deserves the support of the medical profession. But when that movement benefits the people through the aegis of the medical man alone, then his responsibility to support the work is real and great. The individual Doctor of Medicine—every member of the Michigan State Medical Society—owes something and usually much to the noble profession which has brought him gratifying rewards for oft-times arduous but ever-stimulating service. No greater self-satisfaction can be achieved by a physician than by contributing some portion of that reward towards the preservation of the profession he loves. I earnestly recommend the Michigan Foundation for Medical and Health Education to the consideration of our doctors who personally or through influence with patients and friends are able financially to help build this monument to Michigan Medicine.

A. S. Brunk

President, Michigan State Medical Society

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President's

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Editorial

WHERE DOES IT LEAD?

In June, 1943, in an editorial of this same title, we told of the fund of $37,000 made available in Michigan by the Children's Bureau of the Department of Labor, offering maternity and infant care to the wives and children of enlisted men of the armed forces. This was a part of a general appropriation of $1,200,000. We made two comments that we now repeat:

"This is only obstetrics and pediatrics. What is to prevent the Department from including care for any illness or any surgery, or eye, ear, nose and throat next month, or next year?"

"We are told this is temporary, for the duration of the war and six months after, but nothing is so permanent as a temporary expedient. Soldiers' wives will then be veterans' wives."

Where has it led? Read the following from the *New York Times*:

"The Congress of Industrial Organizations asked, March 25, that the emergency maternity and infant program be extended to cover wives and widows of veterans, and infants born after the father leaves the service. Limitation of the program to wives of enlisted men of the lower four grades is working hardships on many families, Philip Murray, President of the CIO wrote Representative Butler Hare, Chairman of a House subcommittee considering renewal of the program. Asking wide extension of the benefits, Mr. Murray said the wives of veterans should have assistance for two years after their husbands are discharged." (*New York Times,* March 26, 1945.)

"A national plan for maternal and child health, to include financial provisions to provide adequate clinical and hospital service to mothers, infants and children as part of the community health service has been adopted by the steering committee on health services of the Children's Bureau." (*New York Times,* Feb. 24, 1945.)

The committee made eight recommendations including the following:

"1. Increase Federal grants under the social security system for maternal and child health and crippled children's services.

"2. Extension of such services in the states *to cover the entire population.*

"3. Health services for mothers and children of all ages to include periodic health examinations, medical care when needed, dental care and mental hygiene.

"4. Extension of service for crippled children to include rheumatic fever, and special centers for training of those afflicted; *and all other handicapping conditions such as visual and hearing defects, diabetes or other chronic diseases."* (*New York Times,* Feb. 24, 1945.) (Italics ours, Editor.)

We still believe as we have stated so many times that all Federal bureaus will bear watching that Federalizing of medical practice is still a threat, and that only by eternal vigilence and aggressive action may it be stayed.

MEDICAL HONESTY

The *Saturday Evening Post* on May 19, 1945, published an editorial, "Everybody Knew It But the People," calling attention to the state of the President's health during the last presidential election. The politicians, according to Walter Lippmann, knew they were electing a new president, but everyone who asked about the president's health was branded as conducting a whispering campaign. Admiral Ross T. McIntire, the president's physician, stated he was "in better physical condition than the average man of his age, that his health was good, very good, that he was in splendid shape."

The *Post* gives as a reason for bringing this up that it must not happen again. We bring it up to ask a question: How far may a doctor of medicine go in falsifying the facts when giving a report on the condition of his patient, upon whose health great questions hinge? Admiral McIntire may have known the true condition of his patient. If he did, and issued misleading reports, he placed the medical profession in a bad light.

Mr. John F. Hunt, in the survey of public opinion held in Michigan, told us that a small percentage of the people believe that doctors are not honest. How right was he? Do doctors make such forecasts with impunity?

The condition of the President's health is a matter of justifiable concern to each of us. We should be assured that a candidate for such an important office is in reasonably good health. We require officers of the Army and Navy to stand a physical examination before accepting a higher

rank. Why not make the same demand on the "Commander in Chief" while he is a candidate?

MEDICAL OFFICERS AND THE VETERANS' ADMINISTRATION

Government by Directive

THE MICHIGAN State Medical Society has received a letter from one of its members, whose name obviously must be withheld, reading in part as follows:

"I have a problem which also involves a few hundred other army doctors. In my case, I volunteered for service in the Army Medical Corps, and when [I became] surplus in the Army I was assigned to the Veterans' Bureau. I figure, and I believe rightly, that when surplus in the Army at my age, I am entitled to retirement. Have so protested but request was denied, the head of the S.G.O. personnel section stating, 'Assignment to Veterans' Bureau for duty is considered as essential military duty.'

"I don't agree that I volunteered to serve in a Veterans' Bureau. I want to know who does the considering? Is this assignment valid under the laws, or merely a sayso by some Washington Bureaucrat?

"The so-called scarcity of doctors in the Veterans' Bureau is due to several things: (1) poor remuneration; (2) cavalier treatment of M.D.'s by the autocrats; (3) loss of M.D.'s due to movement into civil practice when fellows such as the writer moved to the Army.

"I cannot conceive that my volunteering for army service should be so penalized. Such an act constitutes virtual enslavement. What will be the end to the construance as to what constitutes military necessity? I am just 'plain wound up' over this. . . . I don't know how many Michigan doctors are so involved, but there are several hundred so shanghaied in the United States."

We have noted that the commissions of the Army medical officers all read "for the duration of the war, and six months." In the Navy it is "at the pleasure of the President." In either case, transfer from one service to another was never considered until some months ago when a directive was issued (the reference not now available), allowing transfer, on necessity, of officers between the two major services, and the United States Public Health Service; later the Veterans' Administration was added.

This matter of transfer of medical officers to other services, and especially the Veterans' Administration is not confined to one doctor in Michigan. The following is quoted from the *Journal of the AMA*, May 19, 1945:

"In November, 1944, the Army Medical Department was directed to transfer at least 300 medical corps officers to the Veterans' Administration, this number to include those officers in the zone of the interior who were formerly employed by the Veterans' Administration as civilians. Apparently, about 100 men meeting the latter classification were so assigned and in addition some 200 others selected largely from among men who had been marked 'limited service.' Many of those thus assigned have protested and others are now protesting bitterly against these assignments on the ground that their enlistment was distinctly for military service and that assignment to the Veterans' Administration cannot be thus characterized. Many physicians who have served with distinction in both the European and the Pacific theaters of operation are now indicating by communications addressed to the headquarters of the American Medical Association *the fear that they may be assigned* on their return to the United States to service with the Veterans' Administration. The unwillingness to serve with the Veterans' Administration is based not only on their belief that this cannot be considered military service but also on the point of view that competent, scientific medical care is difficult under the conditions that prevail in the veterans' hospitals."

Bureaucrats have not responded in other matters to storms of protest. But Medical Officers may respond to a protesting avalanche from our members and the many patients who may want their own doctors back in the near future. As matters now stand, these doctors may be retained in the Veterans' Administration for the duration and six months. When will the "duration" end?

"FOR THE DURATION"

FOR THE duration and six months has entered into so many programs, such as EMIC, and the terms of service of the army personnel, that we have attempted to evaluate just what it means. Of course the duration means the duration of the war. And that does not mean an armistice, it means the acceptance of terms and the promulgation of peace. After the first World War the treaty of peace was signed June 28, 1919, and promulgated January 10, 1920. The United States failed to ratify, and made a separate treaty in 1922. We are unable to find the date in any available reference. The duration so far as Europe was concerned was fourteen months af-

ter the armistice. For the United States it was at least thirty-eight months. The same could hold for this present war.

VETERANS' MEDICAL CARE

MORE AND MORE the Veterans' Administration comes to the fore. The latest is the appointment of General Omar Bradley to head the organization. Being a veteran of this war, he will understand the wants of the newer veterans, and naturally will try to supply them.

The Bureau has received much unfavorable comment because of its so-called inadequate or antiquated medical service. Much of the criticism is probably unnecessarily harsh, but it indicates a lack that must be remedied. We suggested in February (page 172), "that authorization be made at once for the use of private hospitals and care by private physicians." There are many "Veterans' Administration Facility" hospitals throughout the country, and additions to them are in process of construction. This construction was stopped for a time, but has just been resumed, at least in the Fort Custer Facility. The construction of new buildings, or new facilities with the $500,000,000 made available does not care for the present need, which is a real need. Men are returning to civil life at an ever-increasing rate. The prime reasons for their return to civil life are their incapacities which do now and will in the future demand medical attention.

The Michigan State Medical Society, through its Council,* has proposed that care by the home physician be authorized to meet this emergency, and to care for the increasing needs until other arrangements may be made. The Veterans' Administration has been unsuccessful in obtaining enough medical officers and has recently proposed the establishment of a medical service somewhat on the order of the Army and Navy or the Public Health Service—that is, a commissioned staff. In the meantime, hundreds of Commissioned Officers of the Army have been transferred under directive to this work. These men volunteered for Army service during the war, and naturally believe they have been unfairly treated. So do we.

*Motion that the reference committee approve the care of Veterans in their home communities by their family physicians was carried unanimously.—Minutes of the Annual Meeting of the Council, January 26, 1945.

Col. J. W. Mountain and others of the United States Public Health Service came to Detroit in May and consulted representatives of the Michigan State Medical Society concerning Michigan Medical Service and how it is working. He asked questions to ascertain whether increased activities could be taken on by Michigan Medical Service and Michigan Hospital Service. One of his questions was, "Could we render services to the veterans of this war? Could we take on large new groups?" He was told the Services could take on that added work and more without a ripple; we have already taken on huge additions and successfully carried on; we believe that voluntary service plans are the best solution to the veterans' problem, the indigent, the border line case, as well as the individual who can and does subscribe to his prepayment medical service needs.

Present Veterans' Administration plans call for hundreds of millions of dollars and years to build hospitals, and additional scores of millions to maintain them. Why not give the returning veteran the *best* medical care *as soon as he needs it?* How? By giving the Veterans' Administration the added authority (if the Administration needs it) to refer all veterans for medical and surgical care *to their own civilian doctors.* The present facility hospitals are full. This would provide for the care now so urgently needed.

The end result! The patient will be far better satisfied; the taxpayer will not have to pay the outlay for great institutions (neither their construction nor their maintenance), and the benefits of the service will include a lessening of the period of illness and convalescence, the natural result of care at home, in home hospitals and among friends. This again will decrease the cost to the taxpayer.

The greatest value of this plan is that it can be put into operation immediately. USE CIVILIAN FACILITIES FOR VETERANS, IN THEIR OWN HOME TOWNS. If anyone has earned the right to home treatment and home accommodations, it is the veteran.

This solution is so simple we fear it has escaped the attention of those in authority. Most vexing problems when solved are solved so simply that we wonder we did not think of it before.

RHEUMATIC FEVER

Recognizing that rheumatic fever in childhood is a grave, but common disease the Michigan State Medical Society appointed a special Rheumatic Fever Committee to study and make suggestions to control the disease, and if possible minimize its serious results. This is a novel but practical and timely work. We have invited H. H. Riecker, M.D., to give us editorial comment.*

—EDITOR.

THE DRAFT examinations have brought into bold relief the general incidence of rheumatic heart disease and, in turn, have stimulated both research and programs of control of a disease affecting about two per cent of the school children in the northern states. The incidence of acute rheumatic fever in the Army of three cases per each one thousand troops again has stimulated an interest in the control of the disease.

While the etiology of rheumatic fever is not definitely known most of the cases follow an upper respiratory tract infection by the beta hemolytic streptococcus. The onset of rheumatic fever occurs about 10 days following the subsidence of the premonitory infection.

No attempt can be made here to give an adequate discussion of any phase of the disease, but by further study the practising physician should be as familiar with it as he is with acute appendicitis.

Since the etiology is unknown, methods of diagnosis are based upon clinical impressions and in many instances the differential diagnosis becomes extremely difficult. It is hoped, therefore, that the diagnostic centers being established by the Michigan State Medical Society will be freely used by all physicians.

In the presence of fever, joint pain, leukocytosis, an elevated sedimentation rate, and evidence of endocarditis, the diagnosis is not difficult. A child, however, may have only fatigue, mild anemia and epistaxis by which to direct one to a very thorough examination of the heart, where a rapid rate, overactivity and soft systolic murmur at the apex may establish the diagnosis of rheumatic fever. The presystolic murmur of mitral stenosis is diagnostic but the early active disease frequently occurs in the absence of this finding.

Only by having the disease constantly in mind for all age groups does the physician diagnose active rheumatic fever. In some instances the disease is outspoken in its manifestations while in others it is extremely insidious. Unlike the diagnostic facilities for tuberculosis there is no instrument comparable to the x-ray with which to detect early or incipient rheumatic fever.

Rheumatic fever has many similarities to tuberculosis in both its clinical picture and its treatment. Both diseases tend to occur in families, among those crowded together, and in the lower economic levels. Both are characterized by recrudesences. Both may lead to serious crippling or complete and permanent inactivity. Both require long periods of rest and close professional observation.

The treatment of rheumatic fever remains much the same as when MacLagan described the specific action of the salicylic group of drugs in 1876. Sodium salicylate is now preferred and is used both by mouth and as retention enemas, but should not be given intravenously. The therapeutic and toxic doses are close in margin and the physician should be familiar with toxic manifestations of the drug.

The dosage of sodium salicylate varies with the weight of the individual, the adult requiring 240 grains per day for the first few days followed by 120 grains per day for a week, and then gradually decreasing doses until the arthralgia and fever subside. For small children either all or part of the dosage may be given as retention enemas in a two per cent solution of starch water. The enteric coated tablet may be used but if not available, sodium bicarbonate in doses of one-half the amount of sodium salicylate will help prevent gastric irritation. However, the use of sodium bicarbonate seems to lessen the effectiveness of sodium salicylate. In all acute cases the patient should be strictly at rest in bed. The affected joints may be painted with methyl salicylate and covered with cotton or woolen flannel. The pyrexia of rheumatic fever is higher than in almost any other disease and an adequate fluid, caloric and vitamin intake is particularly necessary. Salicylic poisoning rarely occurs. Its features are those of an acidosis. This complication is treated by the intravenous use of appropriate amounts of sodium lactate (Hartman's solution).

Penicillin and the sulfonamides have no value in the active stage of rheumatic fever and may

*For outline of study see report of Child Welfare Committee on Page 743.

be harmful. It is particularly desirable not to use a sulfonamide during the course of the disease nor until all signs of activity have ceased, since under the latter circumstance a recrudescence may take place.

The rest regimen should be enforced until the heart rate, fever, and sedimentation rate are normal. There is danger also of producing a recrudescence by such operations as tooth extraction, sinus operation, or tonsillectomy. However, should such procedure be necessary the sulfonamides should be exhibited adequately, risking the flare-up of rheumatism to avoid subacute bacterial endocarditis.

Having carried a child through a course of rheumatic fever the problem of preventing recurrence becomes the physician's next responsibility. After all signs of activity of infection have disappeared, a further delay of about six weeks is followed by the use of a sulfonamide in doses of one to one-and-one-half grams a day, depending somewhat on the size of the child. Either sulfadiazine or sulfamerazine is valuable for this purpose. If there are renal complications sulfanilamide is preferable. The dosage of sulfanilamide for younger children is five grains three times a day, and for older children ten grains with the morning and evening meals. If the child weighs around 50 pounds, 30 grains a day is an adequate dosage. The dosage of sulfamerazine is between 3 and 7 grains once a day for the majority of children. One of these drugs should be given continuously throughout the year to the child having recovered from rheumatic fever for as long as five years.

Adequate blood levels apparently have nothing to do with the prevention of recrudescences. Any toxic effects of the drug are most likely to appear during the first twenty-one days and after this, check-ups of the white cells should be made once a month. There is no verified instance of agranulocytosis after forty-eight days of continuous use of these sulfonamides in small doses. In children under ten years of age who have had several attacks with pronounced cardiac damage a sulfonamide might be used with advantage for eight or ten years.

No doubt the intensified research in the numerous problems of rheumatic fever will bring better methods of management and prophylaxis, so that all physicians should keep abreast of progress in this widespread and crippling disease.—H. H. Riecker, M.D.

ON THE RUN . . .

As chronic nephritis progresses towards terminus, the formed elements in the sediment (such as casts) usually diminish or even disappear.

• • •

A normal parathyroid gland is three quarters fat and one quarter epithelial cells, whereas a tumor is made up entirely of epithelial cells. Hence the difference in color.

• • •

Marked obesity, severe cardiac or respiratory disease, esophageal lesions and deformities of the spine are contraindications to gastroscopy.

• • •

Calcium deposits in the kidney, when not due to infection, result either from injestion of too much calcium, or too much alkali, or a blood acidosis, or hyperparathyroidism.

• • •

Symptoms are produced by cervical ribs in less than half of those showing this anomaly.

Selected by W. S. Reveno, M.D.

PENICILLIN IN TREATMENT OF PERITONITIS

1. Massive doses of penicillin exert a striking effect on peritonitis and, if maintained for a considerable period of time, will usually effect a resolution of intraperitoneal inflammatory masses.

2. Thirty patients with established peritonitis, intraabdominal inflammatory masses, or extensive contamination of the peritoneal cavity from ruptured abscesses were treated with 100,000 units of penicillin every two hours intramuscularly for two days and with diminishing doses for six more days. None developed intraperitoneal abscess or complications.

3. If symptoms and signs of intraperitoneal inflammation recur after the first course of treatment, a second course will pobably again control the infection.—George Crile, Jr., *Cleveland Clinic Quarterly*—July, 1945.

Michigan State Medical Society
Roster 1945

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Johnson, E. B.....Allegan
Johnson, H. H.....Martin
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Gregory, James.....Berrien Center
Gunn, J. W.....Watervleit
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Harper, Ina.....Benton Harbor
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Eberhart, L. L.....Coldwater
Far, S. E.....Quincy
Fraser, R. J.....M
Joerin, William.....M
McLain, R. W.....Jackson
Meier, H. J.....M
Mooi, H. R.....Union City
Olmstead, Kenneth L.....M
Phillips, F. L.....Bronson
Rees, Kendall B.....Dowling
Rennell, E. J.....Coldwater
Schultz, Samuel.....Coldwater
Scovill, H. A.....M
Smith, L. Lloyd.....M
Thomas, J. A.....Coldwater
Wade, R. L.....Coldwater
Walton, N. J.....Quincy
Weidner, H. R.....M
Woods, R. H.....Quincy

Calhoun County

Amos, Norman H.....M
Baribeau, R. H.....Battle Creek
Barnhart, Samuel E.....Battle Creek
Becker, H. F.....M
Beuker, Herman.....Marshall
Bonifer, Philip P.....M
Braham, Wilbur.....M
Brainard, C. W.....M
Campbell, Alice.....Albion
Campbell, R. J.....M
Capron, Manley J.....M
Church, Starr K.....(E)..Marshall
Chynoweth, W. R.....M
Cooper, J. E.....Battle Creek
Curless, Grant R.....M
Curry, Robert K.....M
Dickson, A. R.....Battle Creek
Dodge, Warren M., Jr.....Battle Creek
Fairbanks, Stephen.....Albion
Finch, D. L.....Battle Creek
Forsyth, J. F.....M
Frank, David L.....M
Fraser, R. H.....Battle Creek
Funk, L. D.....Athens
Gething, Joseph W.....Battle Creek
Giddings, A. M.....Battle Creek
Gilfillan, Margery J.....Battle Creek
Gorsline, Clarence S.....Battle Creek
Graubner, F. L.....M
Hafford, Alpheus T.....Albion
Hansen, E. L.....Battle Creek
Hansen, Harvey C.....M
Harris, R. H.....Battle Creek
Haughey, Wilfrid.....Battle Creek
Heald, C. W.....Battle Creek
Henderson, Louis M.....Albion
Henderson, P. M.....Albion
Herzer, Henry A.....Albion
Hills, Carlon R.....Battle Creek
Holes, Jesse J.....(R)..Mt. Dora, Fla.
Holtom, B. G.....Battle Creek
Howard, W. L.....Battle Creek
Hoyt, Aura A.....Battle Creek
Hubly, James W.....M
Humphrey, Archie E.....Marshall
Humphrey, Arthur A.....M
Jeffrey, J. R.....Battle Creek
Jesperson, Lydia.....Battle Creek
Jones, T. K.....M
Keagle, Leland R.....M
Keeler, K. B.....Albion
Kellogg, Carrie S.....Battle Creek
Kingsley, Paul C.....M
Kinde, M. R.....M
Kolvoord, Theodore.....Battle Creek
LaFrance, N. Francis.....Battle Creek
LaPorte, L. A.....Battle Creek
Levy, Joseph.....M
Lewis, W. B.....Battle Creek
Lowe, H. M.....Battle Creek
Lowe, Kenneth.....M
Lowe, Stanley T.....M
MacGregor, Archibald E...Battle Creek
Manni, Lawrence C.....Battle Creek
McNair, Lawrence.....Albion
Meister, F. O.....M
Melges, F. J.....Battle Creek
Mercer, C. M.....Battle Creek
Morrison, Donald B.....M
Moshier, Bertha.....(R)..Battle Creek
Mullenmeister, H. F.....M
Mustard, Russell.....Battle Creek
Norman, Estelle G.....Battle Creek
Norton, Richard C.....M
Patterson, Adonis.....M
Radabaugh, Clara V.....Battle Creek
Robbert, John.....Battle Creek
Robins, Hugh.....Battle Creek
Rorick, Wilma Weeks.....Battle Creek
Rosenfeld, Joseph E.....Battle Creek
Roth, Paul.....(R)..Battle Creek
Royer, C. W.....M
Schelm, George W.....Battle Creek
Selmon, Bertha L.....Battle Creek
Sharp, A. D.....Albion
Shipp, Leland P.....Battle Creek
Sibilsky, A. Clark.....Battle Creek
Simpson, Robert S.....M
Slagle, Geo. W.....M
Sleight, James D.....M
Smith, T. C.....M
Stadle, Wendell H.....M
Stiefel, Richard.....Battle Creek
Tannenholz, Harold S.....Battle Creek
Taylor, Clifford B.....M
Toms, Roland E.....M
Upson, W. O.....Battle Creek
Van Camp, Elijah.....Battle Creek
Vander Voort, Wm. V.....Hastings
Verity, Lloyd E.....Battle Creek
Vollmer, Maud J.....Moline, Ill.
Walters, F. R.....Battle Creek
Watson, Bernard.....M
Wencke, Carl G.....Battle Creek
Winslow, Rollin C.....Battle Creek
Winslow, Sherwood B.....Battle Creek
Zindler, George A.....Battle Creek
Zinn, Carl.....M

Cass County

Adams, U. M.....Marcellus
Clary, R. I.....M
Cunningham, E. M.....Cassopolis
Hickman, John.....Dowagiac
Kelsey, James H.....Cassopolis
Loupee, George.....Dowagiac
Loupee, S. L.....Dowagiac
Lyman, W. R.....Dowagiac
Newsome, Otis.....Cassopolis
Pierce, Kenneth C.....Dowagiac
Rice, Franklin.....M
Zwergel, E. H.....Cassopolis

Chippewa-Mackinac Counties

Birch, William.....M
Blair, H. M.....M
Carr, E. S.....Pickford
Conrad, Geo. A.....Sault Ste. Marie
Cornell, Eliphalet A.....(H)..Sault Ste. Marie
Cowan, Donald.....Sault Ste. Marie
Gilfillan, E. O.....M
Hagele, Marie A.....Sault Ste. Marie
Hakala, L. J.....M
Harrington, H. M.....Sault Ste. Marie
McBryde, Lyman M...Sault Ste. Marie
McDonald, Allan W.....Macinac Island
Mertaugh, W. F.....M
Moloney, F. J.....Sault Ste. Marie
Montgomery, B. T.....Sault Ste. Marie
Scott, Dwight.....Sault Ste. Marie
Vegors, Stanley H.....Sault Ste. Marie
Wallen, Le Roy J.....M
Willison, C.....Sault Ste. Marie
Yale, I. V.....Sault Ste. Marie

Clinton County

Cook, Bruno.....Westphalia
Elliott, Bruce R.....Ovid
Foo, Charles T.....St. Johns
Frace, Guy H.....St. Johns
Hart, Dean W.....M
Henthorn, A. C.....St. Johns
Ho, Thomas Y.....St. Johns
Luton, F. E.....St. Johns
McWilliams, W. B.....Maple Rapids
Russell, Sherwood R.....M
Stoller, R. Paul.....M
Wahl, George Edward.....M

Delta-Schoolcraft Counties

Bernier, A. Barrso.....Nahma
Benson, G. W.....Escanaba
Boyce, D. H.....Escanaba
Brenner, Ervin J.....M
Carlton, A. J.....Escanaba
Chenoweth, Nancy R....(E)..Escanaba
Clausen, Claire H.....M
Defnet, Harry John.....Escanaba
Diamond, J. A.....Gladstone
Frenn, N. J.....Bark River
Fyvie, James.....M
Gross, Harold Quinten.....Escanaba
Groos, Louis P.....Escanaba
Hult, Otto S.....Gladstone
Kitchen, A. S.....Escanaba
Lemire, Wm. A.....M
Lindquist, N. L.....Manistique
Lockwood, C. E.....Manistique
McInerney, Edna C.....Escanaba
McInerney, Thomas A.....M
Miller, Albert H.....Gladstone
Moll, G. W.....Escanaba
Shaw, George A.....Manistique
Walch, J. J.....Escanaba

Dickinson-Iron Counties

Addison, E. R.....Crystal Falls
Alexander, W. H.....Iron Mountain
Boyce, George R.....Iron Mountain
Browning, James L.....Iron Mountain
Cooper, C. A.....Stambaugh
De Salvo, F.....Niagara, Wisc.
Fiedling, Wm.....Norway
Frederickson, Geron.....Iron Mountain
Gloss, Kenneth E.....M
Haight, Harry H.....M
Hayes, R. E.....Sagola
Huron, W. H.....Iron Mountain
Irvine, L. E.....Iron River
Kofmehl, Wm. J.....Stambaugh
McEachran, Hugh.....M
Menzies, Clifford.....Iron Mountain
Neuwirth, A. A.....Stambaugh
Retallack, R. C.....M
Smith, Donald R.....Iron Mountain

Eaton County

Arner, Fred Levi.....Bellevue
Brown, B. Philip.....M
Burdick, Austin F.....Grand Ledge
Carothers, Daniel J.....M
Clements, F. W.....Eaton Rapids
Engle, Paul.....Olivet
Goff, S. B.....M
Hannah, H. W.....Charlotte
Hargrave, Don V.....Eaton Rapids
Huber, Chas. D.....Charlotte
Huyck, Stanhope Pier.....M
Imthun, Edgar F.....M
McLaughlin, C. L. D.....Vermontville
Myers, Albert W.....Potterville
Paine, E. Madison, Jr.....M
Quick, Phil H.....Olivet
Rummell, Robert J.....Grand Ledge
Sassaman, F. W.....Charlotte
Sevener, Lester G.....Charlotte
Stucky, Geo.....Charlotte
Van Ark, Bert.....M
Van Kolken, P. J.....Eaton Rapids

Genesee County

Adams, Chester.....M
Andrews, N. A. C.....M
Anthony, Geo. E.....M
Backus, Glenn R.....M
Baird, James.....Flint
Bald, Frederick W.....M
Barbour, Fleming A.....M
Baske, Franklin W.....Flint
Bateman, L. G.....M
Benson, J. C.....Flint
Bernstein, Eli N.....M
Biggar, H. R.....Flint
Bishop, D. L.....Flint
Blakeley, A. C.....Flint
Bogart, Leon M.....Flint
Boles, William P.....Flint
Bonathan, Alvin T.....Flint
Bradley, Robert.....M
Brain, R. Gordon.....Flint
Branch, Hira E.....M
Brasie, Donald R.....Flint
Briggs, Guy D.....M
Bruce, Wm. W.....M
Buchanan, W. Fremont.....Fenton
Burkett, L. V.....Flint
Burnell, Max.....Flint
Burnside, Howard B.....M
Caster, E. Wilbur.....Flint
Chaffee, Elsa.....Flint
Chambers, Myrton S.....Flint
Chandler, M. E.....Flint
Charters, John H.....Flint
Clark, Clifford P.....Flint
Colwell, C. W.....M
Connell, J. T.....Flint
Conover, G. V.....M
Conover, T. S.....Flint
Cook, Henry.....Flint
Covert, F. L.....Gaines
Crane, Harley C.....Flint
Credille, B. A.....Flint
Curry, George.....Flint
Curtin, J. H.....Flint
David, T. George.....Flint
Del Zingro, N.....Davison
Denholm, Nan H.....Flint
Dimond, E. G.....Flint
Dodds, F. E.....Flint
Drewyer, Glen.....M
Edgerton, A. C.....Clio
Eichhorn, Ernest.....Flint
Eickhorst, Thomas N.....M
Ettinger, Ralph D.....Clio
Evers, J. W.....Flint
Farhat, M. M.....M
Finkelstein, T.....M
Flynn, S. T.....M
Foley, S. I.....Flint
Fuller, H. T.....M
Gelenger, Stephen M.....M
Gleason, N. Arthur.....Flint
Goering, George R.....Flint
Golden, H. Maxwell.....Flint
Goodfellow, B. T.....Flint
Gorne, S. S.....M
Gray, Edwin F.....M
Grover, H. F.....Flint
Guile, Earl E.....Flint
Guile, G. S.....Flint
Gundry, G. L.....Grand Blanc
Gutow, J. J.....M
Hague, R. F.....M
Halligan, Raymond S.....Flint
Hamaday, Ruth.....Flint
Handy, John W.....(E)..Flint
Harper, A. W.....Flint
Harper, Homer.....Flint
Harrison, Leo. D.....Flint
Hawkins, James E.....Flint
Hays, George A.....M
Hiscock, H. H.....M
Houston, James.....Swartz Creek
Hubbard, Wm. B.....Flint
Hufton, Wilfred L.....Flint
Johnson, Arthur H.....Flint
Johnson, Frank D.....M
Jones, Lafon.....Flint
Kaleta, Edward.....M
Kaufman, Lewis D.....M
Kirk, A. Dale.....Flint
Knapp, M. S.....(R)..Fenton
Kretchmar, A. H.....Flint
Kurtz, J. J.....Flint
Lambert, L. A.....M
Leach, J. L.....Flint
Livesay, Jackson E.....Flint
Logan, G. W.....Flushing
MacDuff, R. B.....Flint
MacGregor, D. M.....Flint
MacGregor, R. W.....Flint
Macksood, Joseph.....Flint
Marsh, H. L.....Flint
Marshall, William H.....Flint
Mason, Elta.....Flint
McArthur, A.....Flint
McArthur, R. H.....M
McGarry, Burton G.....Fenton
Miller, Edwin E.....Flint
Miller, Loren Eugene.....Flint
Miltick, Anthony J.....Flint
Moore, John W.....Flint
Moore, Kenneth B.....Flint
Morrish, Ray S.....Flint
Morrissey, V. H.....Flint
Mosier, Edward C.....Otisville
Odle, Ira.....Flint
Olson, James A.....Flint
O'Neil, C. H.....(R)....Deckerville
Orr, J. Walter.....Flint
Phillips, R. L.....Flint
Pfeifer, A. C.....Mt. Morris
Pratz, O. C.....Flint
Preston, Otto.....Flint
Probert, C. C.....Flint
Randall, H. E.....Flint
Reeder, Frank E.....Flint
Reichard, Orill.....Flint
Reid, Wells C.....Goodrich
Richeson, V.....Flint
Rieth, George F.....M
Reynolds, A. J.....Flint
Roberts, Floyd A.....Flint
Rowley, James A.....Flint
Rundles, Walter Z.....M
Rynearson, W. J.....Fenton
Sandy, K. R.....M
Scavarda, Charles J.....M
Schiff, B. A.....M
Scott, R. D.....Flint
Shantz, L. O.....Flint
Sleeman, Blythe R.....Linden
Sheeran, Daniel H.....Flint
Shipman, Charles W.....Flint
Smith, D. C.....Flint
Smith, E. C.....Flint
Smith, Maurice J.....M
Sniderman, Benjamin.....Flint
Snyder, Charles E.....M
Sorkin, Morris L.....M
Sorkin, S. S.....M
Stephenson, Robert A.....Flint
Steinman, F. H.....M
Stevenson, W. W.....Flint
Streat, R. W.....Flint
Stroup, C. K.....Flint
Sutherland, James K.....Flint
Sutton, Geo.....Flint
Sutton, M. R.....Flint
Thompson, Alvin.....Flint
Thomson, J. Oscar.....Grand Blanc
Tofteland, Elmer H.....M
Treat, D. L.....Flint
Trumble, G. W.....Flint
Vander Slice, David.....Flint
Van Gorder, Geo.....M
Vary, Edwin P.....M
Walcott, C. G.....M
Ward, Nell.....Flint
Ware, Frank A.....Flint
Wark, D. R.....Flint
Werness, Inga W.....Flint
White, Carl H.....M
White, Herbert.....Flint
Williams, W. S.....Flint
Wiloughby, G. L.....M
Wiloughby, L. L.....Flint
Wills, T. N.....Flint
Woughter, Harold W.....M
Wright, D. R.....Flint
Wyman, J. S.....Flint

Gogebic County

Albert, S. G.....Ironwood
Anderson, Chas. E.....Bessemer
Eisele, D. C.....Ironwood
Gertz, M. A.....Ironwood
Gorrilla, A. C.....Ironwood
Gullickson, Miles.....M
Hendrickson, A. O.....Ironwood
Lieberthal, M. J.....Ironwood
Lieberthal, Paul.....Ironwood
Maccani, Wm. L.....Ironwood
Nezworski, H. T.....Ironwood
O'Brien, A. J.....Ironwood
Pierpont, D. C.....Ironwood
Pinkerton, H. A.....M
Stevens, Chas. E.....Ironwood
Tressel, H. A.....Wakefield
Urquhart, C. C.....Ironwood
Wacek, W. H.....Ironwood

Grand Traverse-Leelanau-Benzie Counties

Atkinson, C. F.....Traverse City
Baumann, Milton C.....M
Berghorst, John.....Traverse City
Bolan, Ellis J.....Suttons Bay
Brownson, Jay J.....Kingsley
Brownson, Kneale M.....M
Bushong, B. B.....Traverse City
Covey, E. L.....Honor
Ellis, Claude I.....Suttons Bay
Gallagher, W. H.....Traverse City
Gauntlett, J. W.....Traverse City
Goodrich, Dwight.....Traverse City
Grawn, F. A.....Traverse City
Hamilton, Earl E.....M
Huene, Nevin.....M
Huston, Russell R.....Elk Rapids
Hyslop, Wm. T.....Traverse City
Jerome, Jerome T.....Traverse City
Kitson, V. H.....Elk Rapids
Knapp, Jos. L.....M
Kyselka, H. B.....Traverse City
Lemen, Chas. E.....M
Lentz, R. J.....M
Lossman, R. T.....Traverse City
Murphy, Fred E.....Traverse City
★Nickels, M. M.....M
Osterlin, Mark.....Traverse City
Peak, I. F.....Traverse City
Sheets, R. Philip.....Traverse City
Sladek, E. F.....Traverse City
Stone, Fordyce H.....Beulah
Swanton, L.....Traverse City
Swartz, F. G.....Traverse City
Thacker, Fred R.....Frankfort
Thirlby, E. L.....Traverse City
Thompson, T. W.....Traverse City
Trautman, Frederick B.....M
Van Leuven, B. H.....Lansing
Way, Lewis R.....M
Weitz, Harry.....Traverse City
Wilcox, Paul H.....Traverse City
Willard, Wm. G.....Benzonia
Willoughby, Frances Lois.....M
Zielke, I. H.....M
Zimmerman, J. G.....Traverse City

Gratiot-Isabella-Clare Counties

Aldrich, Alfred L.....Ithaca
Barstow, D. K.....M
Barstow, Wm. E.....St. Louis
Baskerville, C. M.....Mt. Pleasant
Becker, Myron G.....Edmore
Budge, M. J.....Ithaca
Burch, L. J.....Mt. Pleasant
Burt, C. E.....Ithaca
Carney, T. J.....Alma
Dale, Edward C.....M
Davis, L. L.....M
Drake, Wilkie M.....Breckenridge
DuBois, C. F.....Alma
Graham, B. J.....M
Hall, B. C.....Pompeii
Hammerburg, Kuno.....M
Harrigan, Wm. L.....Mt. Pleasant
Hersee, Wm. E.....M
Hobbs, A. D.....St. Louis
Hyslop, Leland F.....Mt. Pleasant
Johnson, P. R.....Mt. Pleasant
Kilborn, H. F.....Ithaca
Lamb, E. T.....Alma
McArthur, Stewart C.....Clare
Miller, S. W.....M
Oldham, E. S.....M
Putzig, Louis M.....Blanchard
Rondot, E. F.....Lake
Rottschafer, J. L.....M
Silvert, P. P.....Vestaburg
Slattery, F. G.....M
Strange, Russell H.....Mt. Pleasant
Waggoner, R. L.....St. Louis
Wilcox, R. A.....Alma
Wilson, Earl C.....Harrison
Wolfe, Kenneth P.....M
Wood, Cornelius B.....M

Hillsdale County

Alleger, W. E.....Pittsford
Bower, Chas. T.....Hillsdale
Clobridge, C. E.....Allen
Davis, L. A.....Montgomery
Day, Luther W.....Jonesville
Douglas, E. W.....Hillsdale
Fisk, Fred B.....Jonesville
Green, B. F.....Hillsdale
Hamilton, A. J.....Hillsdale
Hanke, Geo. R.....Ransom
Hodge, C. L.....Reading
Hughes, Henry F.....Hillsdale
Johnson, C. E.....M
Kinzel, R. W.....M
Kline, Fred D.....Litchfield
MacNeal, John A.....Hillsdale
Martindale, E. A.....Hillsdale
Mattson, H. F.....M
McFarland, O. G.....North Adams
Miller, Harry C.....Hillsdale
Moench, George F.....Hillsdale
Sandor, A. A.....M
Sawyer, Walter W.....M
Sterling, John S.....Jerome
Strom, A. W.....M

Houghton-Baraga-Keweenaw Counties

Abrams, James C.....Calumet
Acocks, J. R.....M
Aldrich, A. B.....Houghton
Aldrich, Addison D.....Houghton
Aldrich, Leonard.....M
Bourland, Phillip D.....Calumet
Brewington, George F....(E)..Mohawk
Burke, John.....Hubbell
Coffin, Leslie E.....Painesdale
Gregg, W. T. S.....(E)..Calumet
Hillmer, R. E.....Beacon Hill
Janis, A. J.....Hancock
Kadin, Maurice.....M
King, Wm. T.....Ahmeek
Kirton, Joseph R. W.....Calumet
Kolb, F. E.....M
LaBine, Alfred.....Houghton
Levin, Simon.....Houghton
MacQueen, Donald K....(E)..Laurium
Manthei, W. A.....Lake Linden
Marshall, Frank F.....L'Anse
McClure, Robert James.....Calumet
Murphy, Percy C.....Ahmeek
Pleune, R. E.....M
Quick, James B.....Laurium
Roche, A. C.....Calumet
Roche, Andrew M.....M
Sarvela, H. L.....Hancock
Sloan, P. S.....Houghton
Smith, Charles R.....Houghton
Stahr, H. S.....Newberry
Stern, Isadore D.....Houghton
Tinetti, Ernest F.....M
Ware, H. M.....Nahma
Whitmore, R. C.....Hancock
Wickliffe, T. P.....Calumet
Willson, P. H.....Chassell
Winkler, Henry J.....L'Anse

Huron County

Gettle, Roy R.....Kinde
Henderson, J. Bates.....Sebewaing
Herrington, Charles I.....Bad Axe
Herrington, Willet J.....Bad Axe
Holdship, Wm. B.....Ubly
Monroe, Duncan J.....Elkton
Morden, Charles B.....Bad Axe
Oakes, C. W.....Harbor Beach
Ritsema, John.....Sebewaing
Scheurer, C.....Pigeon
Thumme, Harrison F.....Sebewaing

Ingham County

Atkinson, Everett H.....E. Lansing
Badgley, W. O.....Lansing
Barrett, C. D.....Mason
Bartholomew, Henry S.....(R)..Harbor Beach
Bauer, Theodore I.....Lansing
Behen, Wm. C.....Lansing
Bellinger, E. G.....Lansing
Black, Charles E.....Williamston
Black, Gertrude.....Williamston
Bobczynski, Wilhelmina E.....Lansing
Bradford, C. W.....Lansing
Breakey, Robert S.....Lansing
Briede, Paul.....Lansing
Brubaker, Earl.....Lansing
Brucker, Karl B.....Lansing
Bruegel, Oscar H.....E. Lansing
Burhans, Robert.....M
Cameron, W. J.....Lansing
Carr, E. I.....Lansing
Christian, L. G.....Lansing
Clark, William E.....M
Clinton, George R.....M
Cook, R. J.....Lansing
Cope, H. E.....Lansing
Corneliuson, Goldie B.....Lansing
Corsaut, J. C.....Mason
Cross, Frank S.....Lansing
Cummings, G. D.....Lansing
Darling, L. H.....Lansing
Dart, Dorothy.....Lansing
Dean, Carleton.....Lansing
DeKleine, William.....Lansing
DeLay, C. P.....Webberville
DeVries, C. F.....Lansing
Doyle, Charles R.....M
Doyle, C. P.....Lansing
Drolett, Donald J.....M
Drolett, Fred J.....Lansing
Drolett, Lawrence.....M
Dunn, F. M.....Lansing
Ellis, Bertha W.....Lansing
Ellis, C. W.....Lansing
Feeney, Kenneth J.....Lansing
Finch, Russell L.....Lansing

Fisher, D. W.....M
Fosget, Wilbur W.....Lansing
Foust, E. H.....Lansing
French, Horace L.....Lansing
Galbraith, Dugald A.....Lansing
Gardner, C. B.....Lansing
Gibson, T. E.....M
Goldner, R. E.....M
Gunderson, George.....Lansing
Heald, Gordon H.....M
Harris, Herbert W.....M
Harrold, J. F.....M
Hart, L. C.....Lansing
Haze, Harry A.....Lansing
Haynes, H. B.....Lansing
Heckert, Frank B.....Lansing
Heckert, J. K.....Lansing
Hendren, Owen.....M
Henry, L. L.....Lansing
Himmelberger, R. J.....M
Hodges, Kenneth P.....M
Holland, Charles F.....E. Lansing
Huggett, Clare C.....M
Hughes, Howard Allen.....M
Huntley, Fred M.....Lansing
Hurth, M. S.....Lansing
Johnson, H. K.....M
Jones, Francis A.....Lansing
Jones, Francis, Jr.....Lansing
Kalmbach, R. E.....Lansing
Keim, C. D.....Lansing
Kelly, William H.....M
Kent, Edith Hall.....Lansing
Kent, Herbert K.....Lansing
Larrabee, E. E.....Williamston
LeDuc, Don M.....M
Ley, Wilfred.....M
Loree, Maurice C.....Lansing
Lucas, T. A.....Lansing
Ludlum, L. C.....Lansing
Markuson, Kenneth E.....Lansing
Martin, Wayne O.....Lansing
McConnell, E. G. (R).....
Elizabeth City, N. C.
McCorvie, C. Ray.....E. Lansing
McCoy, Earl M.....Grand Ledge
McCrumb, R. R.....Lansing
McElmurry, Leland R.....Lansing
McGillicuddy, Oliver B.....M
McGillicuddy, R. J.....M
McIntyre, J. Earl.....Lansing
McNamara, William E.....Lansing
Meade, Wm. H.....M
Mercer, Walter E.....M
Meyer, Hugh R.....Lansing
Miller, H. A.....Lansing
Mitchell, A. B.....Lansing
Morrison, C. V.....Lansing
Morrow, R. J.....M
Myers, V. C.....Lansing
O'Sullivan, Gertrude.....Mason
Pinkham, R. A.....Lansing
Ponton, J.....Mason
Prall, H. J.....Lansing
Randall, O. M.....Lansing
Rector, Frank L.....Lansing
Richards, F. D.....M
Richardson, M. L.....Lansing
Roberts, Russell.....Lansing
Robson, Edmund J.....M
Rozan, J. S.....Lansing
Rozan, M. M.....M
Russell, Claude V. (R).....Lansing
Sander, John F.....M
Seger, Fred L.....Lansing
Shaw, Milton.....Lansing
Shepherd, Clara S.....Lansing
Sherman, G. A.....E. Lansing
Sichler, Harper G.....Lansing
Silverman, Irving E.....M
Smith, A. V.....Mason
Smith, H. M.....Lansing
Smith, Lillian R.....Lansing
Snell, D. M.....Lansing
Snyder, LeMoyne.....Lansing
Stanka, Andrew G.....Grand Ledge
Spencer, Perry.....M
Steiner, A. A.....Lansing
Stiles, Frank.....M
Strauss, P. C.....Lansing
Swartz, Frederick.....M
Tamblyn, F. W.....M
Thiehoff, E. V.....Lansing
Thomas, L. G.....M
Toothaker, Kenneth.....M
Town, F. R.....Lansing
Towne, Lawrence C.....Lansing
Troost, F. L.....Holt
Vander Slice, E. R.....Lansing
Vander Zalm, T. P.....M
Venier, J. H.....Lansing
Wadley, R.....Lansing
Webb, Roy O.....Lansing
Welch, William H.....Lansing
Wellman, John M.....M
Wetzel, John O.....Lansing
Wilensky, Thomas.....Lansing
Wiley, Harold W.....Lansing
Willson, Howard S.....Lansing
Wilson, Harry A.....Lansing

Ionia-Montcalm Counties

Benison, Arthur L.....M
Bird, Wm. L.....Greenville
Botting, A. J.....Portland
Bracey, L. E.....Sheridan
Bunce, E. P.....Trufant
Bunce, Leo.....M
Cook, George Harvey.....Ionia
Dunkin, Lloyd S.....M
Fleming, J. C.....Pewamo
Fox, Harold M.....Portland
Geib, O. P.....Carson City
Hansen, Carl M.....M
Hansen, M. M.....Greenville
Haskell, Robert H.....Northville
Hay, John R.....Saranac
Hoffs, M. A.....Lake Odessa
Hollard, A. E.....Belding
Imus, H. L.....Ionia
Johns, Joseph J.....Ionia
Kelsey, L. E.....Lakeview
Kling, V. F.....M
Lilly, Isaac S.....Stanton
Marsh, F. M.....Ionia
Marston, L. L.....M
McCann, John J.....Ionia
Mintz, Morris J.....M
Murawa, V. J.....Ionia
Norris, Wm. W.....Portland
Peabody, C. H.....Lake Odessa
Pankhurst, C. T.....Ionia
Robertson, P. C.....Ionia
Seidel, Karl E.....M
Slagh, Milton E.....M
Socha, Edmund S.....Ionia
Swift, E. R.....Lakeview
VanDuzen, V. L.....Grand Rapids
VanLoo, J. A.....M
Weaver, Harry B.....Greenville
Whitten, R. R.....Ionia
Willits, C. O.....Saranac

Jackson County

Ahronheim, J. H.....M
Alter, R. H.....Jackson
Anderson, W. B.....Jackson
Appel, S.....M
Baker, G. M.....Parma
Balconi, Henry.....Jackson
Bartholic, F. W.....M
Beckwith, S. A.....Stockbridge
Bullen, G. R.....Jackson
Chabut, H. M.....Jackson
Chivers, R. W.....Jackson
Clarke, C. S.....Jackson
Cochrane, Wayne A.....Jackson
Cooley, Randall M.....Jackson
Corley, C.....Jackson
Corley, Ennis H.....Jackson
Cox, Ferdinand.....Jackson
Crowley, Edward D.....M
Culver, Guy D.....Stockbridge
DeMay, C. E.....Jackson
Dengler, C. R.....Jackson
Edmonds, J. M.....M
Enders, W. H.....Jackson
Filip, H. K.....Jackson
Finton, Walter L.....Jackson
Finton, W. R.....M
Foust, W. L.....Grass Lake
Gibson, F. J.....Jackson
Glover, H. G. (R).....Jackson
Gordon, D. L.....M
Greenbaum, Harry.....M
Habenicht, Hilda.....Jackson
Hackett, T. E.....Jackson
Hanft, Cyril F.....Springport
Hanna, R. J.....M
Hardie, G. C.....Jackson
Harris, Lester J.....Jackson
Hicks, Glenn C.....Jackson
Holst, John B.....M
Huntley, W. B.....Jackson
Hurley, H. L.....Jackson
Keefer, A. H.....Concord
Kudner, Don F.....Jackson
Lake, Wm. H.....Jackson
Lathrop, William W. (E).....Jackson
La Victoire, Isaac N.....M
Leahy, E. O.....Jackson
Lenz, C. R.....M
Leonard, Clyde A.....Jackson
Lewis, E. F.....Jackson
Lojacono, Salvatore.....Jackson
Ludwick, J. E.....M
McGarvey, W. E.....Jackson
McLaughlin, M. J.....Jackson
McLauthlin, Herbert B.....M
Meads, J. B.....Jackson
Miller, J. L.....M
Munro, C. D.....Jackson
Munro, James E.....Jackson
Murphy, B. M.....M
Newton, R. E.....Jackson
Oleksy, S.....M
O'Meara, James J.....Jackson
Otis, Grant L.....M
Payne, Andrew K.....Jackson
Phillips, G.....Jackson
Pier, C. T.....Jackson
Porter, H. W.....Jackson
Pray, Frank F.....Jackson
Pray, George R.....Jackson
Ransom, F. G.....Jackson
Riley, Philip A.....Jackson
Roberts, Arthur J. (E).....Jackson
Schepeler, C. W.....Brooklyn
Schmidt, T. E.....Jackson
Scott, John A.....M
Seybold, Edward G.....M
Shaeffer, A. M.....Jackson
Sill, Henry W.....Jackson
Sirhal, Alfred M.....M
Smith, Dean W.....Jackson
Speck, John W.....Jackson
Southwick, W. A.....M
Stewart, L. L.....Jackson
Sugar, Samuel.....M
Susskind, M. V.....M
Tate, Cecil E.....M
Thayer, E. A.....Jackson
Thalner, L. F.....Jackson
Torwick, E. T.....Jackson
Townsend, J. W.....Vandercook Lake
Van Schoick, J. D.....Hanover
Van Schoick, Frank.....Jackson
Van Wagnen, F. I.....M
Vivirski, Edward E.....M
Wertenberger, M. D.....Jackson
Wholihan, John W.....Michigan Center
Wickham, W. A.....M
Wilson, N. D.....Jackson
Winter, G. E.....Jackson
Woodward, George D.....
Sault Ste. Marie

Kalamazoo County

Aach, Hugo.....M
Adams, DeWitt.....Newberry
Anderson, K. A.....Kalamazoo
Alexander, C. A.....Kalamazoo
Andrews, Sherman.....M
Armstrong, Robert J.....Kalamazoo
Banner, Lawrence R.....Kalamazoo
Barnebee, J. W.....Kalamazoo
Behan, Gerald W.....Galesburg
Benjamin, Margaret.....Kalamazoo
Bennett, Charles L.....Kalamazoo
Bennett, Keith.....M

Berry, J. F.....Kalamazoo
Bodmer, H. C.....Kalamazoo
Borgman, Wallace.....M
Boys, C. E.....Kalamazoo
Brown, I. W.....Kalamazoo
Caldwell, Geo. H.....Kalamazoo
Cobb, Horace R.....Kalamazoo
Cook, R. G.....Kalamazoo
Crane, W. B.....Kalamazoo
Crawford, Kenneth.....M
Dahlstrom, Doris.....Kalamazoo
DenBleyker, Walter.....Kalamazoo
DeWitt, L. H.....Kalamazoo
Dowd, B. J.....M
Doyle, F. M.....M
Ertell, Wm. Francis.....Kalamazoo
Fast, R. B.....Kalamazoo
Fopeano, John V.....M
Fulkerson, C. B.....Kalamazoo
Fuller, R. T.....Kalamazoo
Fuller, Paul.....M
Gerstner, Louis.....Kalamazoo
Gilding, Joseph.....M
Goodhue, Lolita.....Kalamazoo
Grant, Frederick E.....Kalamazoo
Green, William.....Kalamazoo
Gregg, Sherman.....Kalamazoo
Heersma, H. S.....Kalamazoo
Hildreth, R. C.....Kalamazoo
Hobbs, Edw. J.....Galesburg
Hodgman, Albert B.....M
Hoebeke, William G.....Kalamazoo
Holder, Charles.....M
Howard, W. H.....Galesburg
Hubbell, R. J.....Kalamazoo
Huyser, William C.....Kalamazoo
Irwin, William D.....M
Jackson, Howard C.....M
Jackson, John B.....Kalamazoo
Jennings, W. O.....Kalamazoo
Kavanaugh, Wm. R.....M
Kenzie, W. N.....(No address)
Klerk, W. J.....M
Koestner, Paul.....M
Kuhs, Milton L.....M
Lambert, R. H.....Kalamazoo
Lang, W. W.....Kalamazoo
Lavender, Howard.....Kalamazoo
Light, Richard Upjohn.....Kalamazoo
Light, S. Rudolph.....Kalamazoo
Littig, John.....Kalamazoo
MacGregor, J. R.....M
Malone, James G.....M
Margolis, Frederick J.....Kalamazoo
Marshall, Don.....M
Marshall, Evelyn W.....Kalamazoo
McCarthy, J. S.....Kalamazoo
McIntyre, Charles H.....M
Moe, Carl Rex.....M
Morter, Roy A.....Kalamazoo
Nell, Edward R.....M
Nibbelink, Benjamin.....Kalamazoo
Okun, M. H.....M
Patmos, Martin.....M
Peelen, Matthew.....M
Perry, Clifton.....Kalamazoo
Pratt, F. A.....Kalamazoo
Prentice, Hazel R.....Kalamazoo
Rigterink, G. H.....M
Rigterink, H. A.....Kalamazoo
Rockwell, Donald C.....Kalamazoo
Ryan, F. C.....M
Sage, E. D.....Kalamazoo
Scholten, D. J.....Kalamazoo
Scholten, Wm.....Kalamazoo
Schrier, C. M.....M
Schrier, Paul.....M
Schrier, Thomas.....M
Scott, Wm. A.....M
Shackleton, Wm. E.....Kalamazoo
Shook, R. W.....M
Siemson, W. J.....M
Simpson, B. W.....Kalamazoo
Simson, Clyde B.....M
Snyder, Roscoe F.....Kalamazoo
Sofen, Morris B.....M
Stiller, Anthony F.....Kalamazoo
Southworth, M. N.....M
Stryker, Homer H.....Kalamazoo
Upjohn, E. Gifford.....Kalamazoo
Upjohn, L. N.....Kalamazoo
Van Urk, Thomas.....Kalamazoo
Verhage, Martin D.....M
Volderauer, John C.....M
Wagar, Carl.....Kalamazoo
Wagenaar, E. H.....M
Walker, Burt D.....Kalamazoo
Westcott, L. E.....Kalamazoo
Wilbur, E. P.....Kalamazoo
Youngs, A. S.....Kalamazoo
Youngs, C. A.....Kalamazoo
Zolen, Margaret.....Kalamazoo

Kent County

Adams, F. A.....M
Aitken, George T.....M
Alexander, Marshall O...Grand Rapids
Alfenito, Felix S.....M
Allen, R. V.....Grand Rapids
Avery, Noyes L.....Vancouver, Wash.
Bachman, G. A.....Grand Rapids
Baert, Geo. H.....Grand Rapids
Baker, Abel J.....Grand Rapids
Ballard, M. S.....Grand Rapids
Balyeat, Gordon W.....M
Beaton, James H.....M
Beeman, Carl B.....M
Beeman, C. E.....Grand Rapids
Beets, W. Clarence.....M
Bell, Charles M.....M
Bergsma, Stuart.....Grand Rapids
Bettison, Wm. L.....M
Billings, Elton P.....Grand Rapids
Blackburn, Henry M.....Grand Rapids
Bloxsom, Paul W.....Grand Rapids
Boelkins, Richard C.....M
Boet, F. A.....Grand Rapids
Boet, John.....M
Bond, Geo. Lewis.....Grand Rapids
Bosch, L. C.....Grand Rapids
Brace, Fred.....M
Brayman, C. W.....Cedar Springs
Brink, Russell.....M
Brook, Jacob D.....Grandville
Browning, Eugene S.....Grand Rapids
Brotherhood, J. S.....Grand Rapids
Buesing, O. R.....M
Buist, S. J.....Grand Rapids
Bull, Frank L.....Sparta
Burleson, John S.....Grand Rapids
Burling, Wesley M.....Grand Rapids
Burnett, Paul C.....Grand Rapids
Burroughs, Frank.....M
Butler, Wm. J.....Grand Rapdis
Byers, Earl J.....Grand Rapids
Byrd, Mary Lou.....Grand Rapids
Campbell, Alexander M...Grand Rapids
Carpenter, Luther Clarendon.....M
Chadwick, W. L.....M
Chamberlain, L. H.....Grand Rapids
Chandler, Donald.....Grand Rapids
Claytor, R. W.....Grand Rapids
Collisi, Harrison S.....M
Colvin, W. G.....M
Corbus, Burton R.....Grand Rapids
Cosgrove, Wm. J.....M
Crane, Charles V.....Grand Rapids
Crane, Harold D.....M
Cuncannan, M. E.....Grand Rapids
Currier, F. P.....Grand Rapids
Dales, Ernest W.....Grand Rapids
Damstra, H. J.....M
Davis, D. B.....M
Dean, Alfred W.....Grand Rapids
DeBoer, Clarence J.....M
DeBoer, Guy Wm.....M
DeMaagd, Gerald.....Rockford
DeMol, Richard J.....Grand Rapids
Denham, R. H.....Grand Rapids
Denham, Robert H., Jr.....M
DePree, Isla G.....Grand Rapids
DePree, Joseph.....Grand Rapids
DeVel, Leon.....M
DeVries, Daniel.....M
DeWar, M. D.....Grand Rapids
Dewey, Kent A.....Grand Rapids
Dick, Mark W.....M
Dickstein, Bernard.....M
Diskey, Donald.....Grand Rapids
Dixon, Willis L.....Grand Rapids
Doran, Frank L.....Grand Rapids
Droste, James C.....Grand Rapids
DuBois, Wm. J.....Grand Rapids
Duiker, Henry.....Grand Rapids
Eaton, Robert M.....M
Eggleston, H. R.....Grand Rapids
Elliott, James A.....Grand Rapids
Failing, John F.....M
Fannaff, Frank L.....Grand Rapids
Farber, Charles E.....M
Faust, L. W.....Grand Rapids
Fee, Manson G.....M
Fellows, Kenneth E.....M
Ferguson, James.....M
Ferguson, Lynn A.....Grand Rapids
Ferguson, Ward S.....Grand Rapids
Ferrand, L.....M
Fitts, Ralph L.....M
Flynn, J. D.....M
Foshee, J. C.....Grand Rapids
Frantz, C. H.....M
Freyling, Robert.....M
Fuller, E. H.....Grand Rapids
Gaikema, E. W.....Grand Rapids
Gibbs, F. F.....Grand Rapids
Gilbert, R. H.....Grand Rapids
Grant, Lee O.....Grand Rapids
Griffith, L. S.....M
Haeck, William.....M
Hagerman, D. B.....Grand Rapids
Hammond, T. W. (R)..Grand Rapids
Hardy, Faith F.....Grand Rapids
Hayes, L. W.....Howard City
Heetderks, Dewey.....Grand Rapids
Henry, James, Jr.....Grand Rapids
Herrick, Ruth.....Grand Rapids
Hill, A. Morgan.....M
Hilt, Lawrence M.....M
Hodgen, J. T.....Grand Rapids
Holcomb, J. W.....Grand Rapids
Holdsworth, M. J.....M
Holkeboer, Henry D.....Grand Rapids
Hollander, Stephen.....M
Hoogerhyde, Jack.....M
Houghton, G. D.....Caledonia
Hufford, A. R.....Grand Rapids
Hunderman, Edward....Grand Rapids
Hutchinson, Robert J....Grand Rapids
Hyland, W. A.....Grand Rapids
Ingersoll, C. F.....M
Jameson, Fred M.....M
Jaracz, W. J.....Grand Rapids
Jarvis, Charles.....Grand Rapids
Kelly, Robert E.....M
Kemmer, Thomas R.....Grand Rajids
Kendall, Eugene L.....Grand Rapids
Klaus, C. D.....M
Kniskern, P. W.....M
Kooistra, Henry P.....Grand Rapids
Koontz, Henry R.....M
Kremer, John.....Grand Rapids
Kreulen, H. J.....Grand Rapids
Kriekard, P. J.....Grand Rapids
Krupp, C. G.....Grand Rapids
Laird, Robert G.....Grand Rapids
Lamb, George F.....Grand Rapids
Lannign, N. E.....Grand Rapids
Lawrence, Howard C.....Grand Rapids
Lentini, Joseph R.....M
Le Roy, Simeon.....Grand Rapids
Lieffers, Harry.....Grand Rapids
Logie, James W.....Grand Rapids
Lyman, William D.....Grand Rapids
MacDonell, James A.....M
Marrin, M. M.....M
Marsh, John P.....Grand Rapids
Maurits, Reuben.....Grand Rapids
McCandliss, Robert.....Grand Rapids
McCormick, John.....M
McDougal, Wm. J.....Grand Rapids
McDougall, Clarice.....Grand Rapids
McKenna, J. L.....M
McKinlay, L. M.....Grand Rapids
McRae, John H.....Grand Rapids
Mehney, Gayle H.....Grand Rapids
Miller, J. Duane.....M
Miller, John J.....Marne
Mitchell, H. C.....M
Mitchell, W. B.....Grand Rapids
Moen, Cornetta G.....Grand Rapids
Moleski, Leo.....M
Moleski, Sanley L.....GrandRapids
Moll, Arthur M.....Grand Rapids
Mouw, Dirk.....M
Mulder, J. D.....Grand Rapids
Murphy, M. J.....M
Nelson, A. R.....M
Noordewier, Albert.....Grand Rapids
Northouse, Peter B.....Grandville
Oliver, W. W.....Grand Rapids
Patterson, P. Wilfred...Grand Rapids
Payne, C. Allen.....M
Pedden, J. R., Jr.....Grand Rapids
Posthuma, Millard.....M
Pott, A. L.....M
Pyle, Henry J.....Grand Rapids
Ragsdale, L. V.....Grand Rapids
Ralph, L. Paul.....M
Reed, Torrance.....Grand Rapids
Reus, Wm. F.....Grand Rapids

Rigterink, J. W.....Grand Rapids
Riley, G. L.....Grand Rapids
Robb, Charles S.....Grand Rapids
Roberts, Mortimer E...Grand Rapids
Robinson, Harold C.....Grand Rapids
Rodgers, William L.....Grand Rapids
Roth, Emil M.....M
Schermerhorn, L. J.....Grand Rapids
Schuitema, Donald.....M
Schnoor, E. W.....Grand Rapids
Schnute, Louise F.....Grand Rapids
Sculley, Ray E.....M
Sevensma, Elisha S.....Grand Rapids
Sevey, L. E.....Grand Rapids
Shepard, B. H.....Lowell
Shellman, Millard W.....M
Slemons, C. C.....Grand Rapids
Sluyter, J. S.....M
Smith, A. B.....Grand Rapids
Smith, Edwin M.....Grand Rapids
Smith, Ferris N.....Grand Rapids
Smith, R. Earle.....Grand Rapids
Snyder, Clarence.....Grand Rapids
Southwick, G. Howard...Grand Rapids
Steffensen, W. H.....M
Stonehouse, G. G.....Grand Rapids
Stover, Virgil E.....M
Sugg, Cullen E.....Grand Rapids
Sus Strong, Carl A.....Grand Rapids
Swenson, H. C.....M
Swenson, Leland L.....M
Ten Have, J.....Grand Rapids
Tesseine, A. J.....M
Teusink, J. H.....Cedar Springs
Thompson, Archibald B. (E) Grand Rapids
Thompson, P. L.....Grand Rapids
Tidey, Marcus B.....Grand Rapids
Tiffany, Jos. G.....Grand Rapids
Torgerson, Wm. R.....Grand Rapids
Truog, C. P.....Grand Rapids
Van Belois, Hardvard J..... Grand Rapids
Van Bree, R. S.....Grand Rapids
Vanden Berg, Henry J...Grand Rapids
Vander Meer, Ray.....M
VanDuine, H. J.....Byron Center
Vann, N. S. .....Grand Rapids
Van Noord, Gelmer A....Grand Rapids
Van Solkema, Andrew...Grand Rapids
Van Solkema, Arthur.....M
Van Woerkom, Daniel...Grand Rapids
Van Zwaluwenberg, Benjamin.....M
Veldman, Harold E.....Grand Rapids
Venema, J. R.....Grand Rapids
Ver Meulen, John.....Wyoming Park
Vis, William R.....Grand Rapids
Vyn, J. D.....Grand Rapids
Warnshuis, Frederick C..... (L)..Windsor, Ont.
Webb, Rowland.....Grand Rapids
Webber, Jerome.....M
Wedgwood, L. G.....Grandville
Wells, Merrill.....Grand Rapids
Wenger, A. V.....Grand Rapids
Wenger, John W.....Coopersville
Whalen, John.....M
Whinery, Joseph B.....Grand Rapids
Wiggers, J. R.....Grand Rapids
Willits, P. W.....Grand Rapids
Wilson, Wm. E....(R)..Grand Rapids
Winter, Garrett, E.....Grand Rapids
Woodburne, A. R.....M
Wright, Thomas B.....Grand Rapids
Yegge, J. P.....Kent City

Lapeer County

Best, Herbert M.....Lapeer
Bishop, G. C.....Almont
Burley, David H.....(E)..Almont
Chapin, Clarence C.....Columbiaville
Cooper, E. R.....Lapeer
Dorland, Clarke.....M
Jackson, Carl C.....M
McBride, J. R.....M
McLeod, K. W. A.....Lapeer
Merz, Henry G.....(E)..Lapeer
O'Brien, Daniel J.....Lapeer
Rehn, Adolph T.....Lapeer
Smith, G. L.....Imlay City
Thomas, J. Orville.....North Branch
Tinker, F. A.....(E)..Lapeer
Zemmer, H. B.....Lapeer

Lenawee County

Abraham, A. O.....Hudson
Blair, Thomas H.....Adrian
Blanchard, L. E.....Hudson
Bland, J. P.....Adrian
Blanden, Merwin R.....Tecumseh
Campbell, C. A.....M
Claflin, G. M.....Adrian
Colbath, W. E.....Adrian
Claxton, W. T.....M
Hall, George C.....M
Hambly, S. B.....Byron
Hammel, H. H.....M
Hardy, P. B.....Tecumseh
Heffron, Howard H.....Adrian
Helzerman, Ralph F.....M
Hewes, A. B.....Adrian
Hornsby, W. B.....Clinton
Howland, F. A.....Adrian
Iler, Harris D.....M
Jewett, Wm. E., Jr.....Adrian
Lamley, Arthur E.....Blissfield
Loveland, Horace H.....Tecumseh
MacKenzie, W. S.....Adrian
McCue, Francis, J., Jr.....M
McCue, F. J., Sr.....Hudson
Marsh, R. G. B.....M
Miller, Perry Lynford.....M
Morden, Esli T.....Adrian
Pasternacki, Arthur S.....M
Patmos, Bernard.....M
Peters, W. L.....Morenci
Raabe, E. C.....Morenci
Rawson, A. P.....M
Rogers, J. D.....M
Spalding, I. L.....Hudson
Stafford, Leo. J.....Adrian
Tubbs, R. V.....Blissfield
Van Dusen, C. A.....Blissfield
Wynn, G. H.....M

Livingston County

Brigham, Jeanette.....Howell
Cameron, Duncan A.....M
Coughlin, Florence J.....Howell
Crandell, Claire H.....Howell
Duffy, Ray M.....Pinckney
Finch, E. D.....Howell
Glenn, Bernard H.....Fowlerville
Hayner, R. A.....M
Hendren, J. J.....Fowlerville
Hill, Harold C.....M
Huntington, H. G.....Howell
Laboe, Edward W.....Howell
Leslie, G. L.....M
McGregor, Archie J.....Brighton
McDowell, Guy Marshall.....Howell
Rednor, Daniel J.....Howell
Sigler, Hollis L.....Howell
Stephens, D. C.....M

Luce County

Campbell, Earl H.....Newberry
Gibson, Robert E.....Newberry
Lance, Paul E.....M
Perry, H. E.....Newberry
Purmort, William R., Jr.....Newberry
Spinks, Robert Earl.....Newberry
Surrell, Matthew A.....M
Swanson, George F.....M

Macomb County

Banting, O. F.....M
Barker, J. G.....Centerline
Berry, Henry G.....(E)..Mt. Clemens
Bower, A. B.....Armada
Brady, Milo J.....St. Clair Shores
Crawford, A. M.....Romeo
Croman, Joseph M., Jr....Mt. Clemens
Croman, Joseph M., Sr..... (E)..Mt. Clemens
Deurloo, H. W.....M
Dudzinski, E. J.....M
Engels, J. A.....Richmond
Isbey, Edward K.....Centerline
Kane, Wm. J.....Mt. Clemens
Lane, M. D.....Romeo
Lynch, Russell E.....Centerline
Maguire, A. J.....M
Moore, C. F.....Mt. Clemens
Parker, B. Morgan.....Utica
Reichman, Joseph J.....Mt. Clemens
Reitzel, Rufus H.....Mt. Clemens
Rivard, Charles L.....M
Roth, G. E.....M
Ruedisueli, Clarence A.....Roseville
Rothman, A. M.....M
Salot, R. F.....M
Scher, Joseph N.....M
Siegfried, E. G.....New Haven
Smith, Milton C.....Mt. Clemens
Stone, Elizabeth A.....M
Sturm, Fred A.....St. Clair Shores
Thompson, A. A.....Mt. Clemens
Ullrich, R. W.....Mt. Clemens
Wellard, Henry C.....M
Whitley, Alec.....St. Clair Shores
Wilde, M. M.....Warren
Wiley, D. Bruce.....Utica
Wiley, Herbert H.....Utica
Wolfson, Victor H.....Mt. Clemens

Manistee County

Grant, C. L.....Manistee
Hansen, E. C.....Manistee
Konopa, John F.....M
Lewis, Lee A.....Manistee
MacMullen, Harlen.....Manistee
Miller E. B.....Manistee
Norconk, Ward H.....Bear Lake
Oakes, Ellery A.....Manistee
Ogilvie, G. D.....M
Quinn, Henry M.....Copemish
Ramsdell, Homer A.....Manistee

Marquette-Alger Counties

Bennett, Arthur K.....Marquette
Berry, Robert F.....Marquette
Bertucci, J. P.....Ishpeming
Burke, R. A.....Negaunee
Bottum, Charles N.....Marquette
Casler, W. L.....Marquette
Cooperstock, M.....Marquette
Corcoran, W. A.....Ishpeming
Drury, Chas. P.....Marquette
Elzinga, E. R.....Marquette
Erickson, Arvid W.....Ishpeming
Fenning, F. A.....M
Hanelin, H. A.....M
Hartt, P. P.....Ishpeming
Hirwas, C. L.....Marquette
Hornbogen, D. P.....M
Howe, L. W.....Marquette
Janes, R. Grant.....M
Keskey, George I.....Marquette
Lambert, W. C.....M
LeGolvan, C.....Marquette
McCann, Neal J.....Ishpeming
Mudge, W. A.....Negaunee
Narotzky, Archie S.....Ishpeming
Nicholson, J. B.....M
Niemi, O. I.....M
Robbins, Nelson J.....Negaunee
Schutz, W. J.....M
Schweinsberg, Sara D.....Marquette
Sicotte, Isaiah.....Michigamme
Treshler, H. J.....Gwinn
Talso, Jacob.....Ishpmeing
Vandeventer, Vivian H.....Ishpeming
Van Riper, Paul.....Champion
Waldie, George McLeod.....Ishpeming
Wickstrom, Geo.....Munising

Mason County

Benjamin, Clayton C.....Ludington
Blanchette, Victor J.....Scottville
Comodo, Nicholas M.....M
Goulet, L. J.....Ludington
Hoffman, H. E.....M
Hoffman, Howard.....M
Hunt, Ivan L.....Scottville
Lintner, Roy C.....Ludington
Martin, Wm. S.....Ludington
Ostrander, R. A.....M
Paukstis, Charles.....Ludington

Mecosta-Osceola-Lake Counties

Bruggema, Jacob.....Evart
Chess, Leo F.....Reed City
Franklin, Benjamin L.....Remus
Ivkovich, Paul.....M
Kilmer, Paul B.....Reed City
Klein, J. Paul.....M
MacIntyre, Donald.....Big Rapids
Merlo, F. A.....Big Rapids
Phillips, R. W.....M
Treynor, Thomas P.....Big Rapids
White, J. A.....Morley
Yeo, Gordon H.....Big Rapids

Medical Society of North Central Counties

Beeby, R. J.....West Branch
Clippert, C. G.....Grayling
Coulter, Keith D.....Gladwin
Drescher, Geo. A.....Lewiston
Egle, Joseph L.....Gaylord
Harris, Levi A.....(E)..Gaylord
Hendricks, Henning V.....Kalkaska
Jardine, Hugh M.....West Branch
Keyport, C. R.....Grayling
Lanting, Roelof.....M
McDowell, Douglas B.....M
McKillop, G. L.....Gaylord
Peckham, Richard.....Gaylord
Sargent, Leland E.....M
Stealy, Stanley.....Grayling

Menominee County

DeWane, F. J.....Menominee
Flanagan, Clarence B.....Menominee
Heidenreich, John R.....Daggett
Jones, Wm. S.....Menominee
Kaye, J. T.....Menominee
Kerwell, K. C.....Stephenson
Mason, Stephen C.....Menominee
Peterson, A. R.....Daggett
Sawbridge, Edward...(E)..Stephenson
Sethney, Henry T.....Menominee
Sethney, Walter F.....Menominee
Towey, J. W.....Powers

Midland County

Ballmer, Robert S.....Midland
Gay, Harold Howard.....Midland
Grewe, N. C.....Midland
Hautau, Emily.....Midland
High, C. V., Jr.....Midland
Howe, Irvin M.....Midland
Linsenmann, Karl W.....Midland
MacCallum, Charles.....Midland
Maynard, W. A.....Coleman
Meisel, Edward H.....M
Nicholas, Mildred.....Midland
Pike, Melvin H.....Midland
Rice, Robert E.....Midland
Sherk, J. H.....Midland
Sjolander, Gust.....Midland
Towsley, W. D.....Midland
Von Haitinger, Kalmon S.....M

Monroe County

Acker, Wm. F.....Monroe
Ames, Florence.....Monroe
Balk, A. C.....Monroe
Barker, Vincent L.....M
Blakey, L. C.....Monroe
Bond, W. W.....M
Cohen, H. Herbert.....M
Denman, D. C.....M
Dusseau, S. V.....(E)..Erie
Ewing, R. T.....Monroe
Fieldhouse, B. J.....Ida
Flanders, J. P.....M
Gelhaus, Wm. J.....Monroe
Golinvaux, C. J.....Monroe
Goodman, Louis.....M
Heffernan, John F.....Carleton
Hensel, Hilda.....Monroe
Heustis, Albert E.....Monroe
Hunter, M. A.....Monroe
Johnson, A. Esther.....Monroe
Landon, Herbert W.....Monroe
Long, Edgar C.....M
Long, Sara.....Monroe
McDonald, T. A.....Monroe
McGeoch, R. W.....Monroe
McMillin, J. H.....Monroe
Meck, H. L.....Dundee
Parmerlee, O. E.....Lambertville
Penzotti, Stanley.....M
Pinkus, Hermann.....Monroe
Reisig, A. H.....M
Sanger, Emerson J.....Monroe
Siffer, J. J.....Monroe
Stolpestad, C. T.....M
Tomlinson, Ledyard.....Newport
Vaughn, Morley S.....Carleton
Wagar, Spencer.....Rockwood
Williams, Robert J.....M
Williamson, G. W.....Dundee

Muskegon County

Anderson, A. J.....Muskegon
Anderson, Axel W.....Lakewood Club
August, R. V.....Muskegon
Bartlett, F. H.....Muskegon
Barnard, Helen.....Muskegon
Bate, L. C.....Muskegon
Beers, Charles.....Muskegon Heights
Benedict, A. L.....M
Bloom, C. J.....Muskegon
Boyd, D. R.....Muskegon
Bradshaw, Park S.....Muskegon
Chapin, Wm. S.....Muskegon Heights
Closz, H. F.....Muskegon
Cohan, Sol G.....Muskegon
Collier, C. C.....Whitehall
Dasler, A. F.....M
Derezinski, Clement F.....Muskegon
Diskin, Frank.....M
Douglas, Robert.....M
Ducey, Edward F.....Muskegon
Durham, C. J.....Muskegon
Dykhuisen, Harold D.....Muskegon
Eckerman, C. E.....Muskegon
Fillingham, Enid.....Muskegon
Fleischman, C. B.....Muskegon
Fleishman, Norman.....M
Foss, Ed O.....Muskegon
Garber, F. W., Jr.....Muskegon
Garland, J. O.....Muskegon
Gillard, James.....M
Goltz, Martha.....Montague
Griffith, Robert M.....M
Hagen, William A.....Muskegon
Hannum, F. W.....Muskegon
Harrington, A. F.....Muskegon
Harrington, R. J.....Muskegon
Hartwell, S. W.....M
Heneveld, John.....Muskegon
Holly, Leland E.....Muskegon
Holmes, Roy Herbert.....M
Kane, Thomas J.....M
Kay, Cecilia.....Muskegon
Keilin, Marie.....Muskegon
Kerr, H. J.....M
Kniskern, E. L.....Muskegon

LaCore, O. M.....Muskegon Heights
Lange, E. W.....Muskegon
Lauretti, Emil.....Muskegon
Laurin, V. Samuel.....Muskegon
LeFevre, Louis.....M
LeFevre, Wm. M.....Muskegon
Loder, Leonel Lewis.....Muskegon
Loomis, John L.....Muskegon
Mandeville, C. B.....Muskegon
Medema, Paul.....Muskegon
Meengs, M. B.....M
Miller, Philip L.....M
Morford, F. N.....Muskegon
Mulligan, A. W.....Muskegon
Oden, Constantine L.....Muskegon
Petkus, Antonie.....Muskegon
Pettis, Emmett.....Muskegon
Powers, Lunette.....Muskegon
Price, Leonard.....M
Pyle, H. J.....Muskegon
Risk, R. A.....Muskegon
Risk, Robert D.....M
Schollen, W.....M
Ryan, Wm. J. J.....Muskegon
Sears, Richard.....Muskegon
Stone, Maxwell E.....Muskegon
Struthers, J. N. P.....Muskegon
Swartout, W. C.....Muskegon
Teifer, Charles A.....Muskegon
Thieme, S. W.....Ravenna
Thornton, E. S.....Muskegon
Wiersma, Silas C.....Muskegon
Wilke, C. A.....Montague
Wilson, P. S.....Muskegon

Newaygo County

Deur, T. R.....Grant
Geerlings, Lambert.....Fremont
Geerlings, Willis.....Fremont
Gordon, B. F.....M
Moore, H. R.....Newaygo
O'Neill, J. W.....White Cloud
Stryker, O. D.....Fremont
Tompsett, Arthur C.....Hesperia

Northern Michigan

Benson, A. A.....Mancelona
Beuker, Bernard.....East Jordan
Blum, Benjamin B.....M
Burns, Dean C.....Petoskey
Conkle, Guy C.....Boyne City
Conti, Joseph.....M
Conway, Wm. S.....M
Duffie, Don Hastings.....Central Lake
Frank, Gilbert E.....Harbor Springs
Gervers, J. H. R.....Bellaire
Giffords, Mark.....M
Hegener, A. J.....Petoskey
Larson, Walter E.....Cheboygan
Lashmet, Floyd H.....Petoskey
Lilga, Harris V.....M
Litzenburger, A. F.....Boyne City
Mast, W. H.....Petoskey
Mayne, Frederick C.....Cheboygan
McCarroll, James C..Santa Clara, Cal.
McCune, Wm. Stanley.....M
McLeod, M. M.....Petoskey
McMillan, Fraley.....Charlevoix
McMillan, Lyle D.....Mackinaw City
Miller, Samuel L.....Jackson
Palmer, Russell.....St. James
Parks, W. H.....Petoskey
Rodgers, John.....Bellaire
Saltonstall, Gilbert B.....Charlevoix
Stringham, J. R.....Cheboygan
Van Dellen, Jerrian.....East Jordan
Wood, George H.....Onaway

Oakland County

Abbott, V. C.....M
Arnkoff, Harry.....Pontiac
AschenBrenner, Z. R.....Farmington
Baker, Frederick A.....Pontiac
Baker, Robert H.....Pontiac
Barker, Howard B.....Pontiac
Bauer, Ernest W.....Hazel Park
Beattie, W. G.....Ferndale
Beck, Otto O.....Birmingham
Benning, C. H.....M
Berg, Richard H.....Oxford
Blue, Jane.....Elizabeth Lake
Borland, Alexander.....Pontiac
Boucher, R. E.....M
Burke, Chauncey G.....Pontiac
Butler, Samuel A.....Pontiac
Calhoun, Ethel T.....Birmingham
Campbell, Malcolm D.....M
Carr, Wm. H.....Holly
Christie, Edward D.....Pontiac
Christie, J. W.....M
Church, J. E.....Pontiac
Cobb, Leon F.....Pontiac
Cobb, Thomas H.....Pontiac
Cooper, Robert J.....M
Cottrell, Martha S.....Novi
Crissman, Harold C.....Ferndale
Cudney, Ethan B.....Pontiac
Dahlgren, Carl.....Keego Harbor
Darling, C. G., Jr.....Pontiac
Dobski, Edwin J.....M
Dunstone, H. C.....Pontiac
Ekeland, Clifford T.....Pontiac
Farnham, Lucius A.....Pontiac
Faulconer, Albert M.....M
Ferris, Ralph G.....Birmingham
Fitzpatrick, Francis.....Pontiac
Flick, Earl J.....M
Flick, John R.....Royal Oak
Foust, Earl W.....M
Fox, John W.....Pontiac
Francis, Donald.....M
Furlong, Harold.....M
Gaensbauer, Ferdinand.....Pontiac
Gariepy, Bernard F.....Royal Oak
Gatley, C. R.....M
Gatley, L. Warren.....Pontiac
Geib, Ormond D.....Rochester
Gehringer, Norman F.....M
Gerls, Frank B.....Pontiac
German, Frank D.....Pontiac
Gibson, Wellington C.....Milford
Grant, William A.....Milford
Grate, L.....M
Green, Wm. M.....Pontiac
Hackett, Daniel Jos.....Pontiac
Haddock, D. A.....Walled Lake
Halsted, Lee H.....Farmington
Hammer, Carl W.....M
Hammonds, E. E.....M
Harvey, Campbell.....Pontiac
Hasner, R. B.....Royal Oak
Hassberger, J. B.....M
Hathaway, Clarence L.....Lake Orion
Hathaway, William.....Rochester
Henry, Colonel R.....Ferndale
Hensley, C. B.....Lake Orion
Howlett, E. V.....Pontiac
Hoyt, D. F.....M
Hubert, John R.....M
Huffman, M. R.....Milford
Hume, T. W. K.....Auburn Heights
Hurst, Daniel D.....Pleasant Ridge
Hutchinson, W. G.....Bloomfield Hills
Jones, Morrell M.....Drayton Plains
Kemp, Felix J.....Pontiac
Kemp, W. Lloyd.....Birmingham
Kimball, A. S.....Pontiac
Kirkup, Norman N.....Hazel Park
Koehler, William H.....Royal Oak
Lambie, John S.....Birmingham
Lambert, Alvin Gerald.....Ferndale
Larson, B. T.....Pontiac
Lass, E. H.....M
Lewis, S. M.....Ferndale
Little, J. W.....M
MacKenzie, O. R.....Walled Lake
Margrave, Edmund C.....Royal Oak
Markley, John Martin.....M
Mason, Robert J.....M
McConkie, J. P.....Birmingham
McEvoy, Francis J.....M
McNeill, H. H.....Pontiac
Mehas, C. P.....Pontiac
Meinke, Herman A.....Hazel Park
Mercer, Frank A.....Pontiac
Merrill, Lionel N.....Royal Oak
Mitchell, B. M.....Pontiac
Monroe, John D.....Pontiac
Montgomery, Marian Z.....Pontiac
Neafie, Chas. A.....Pontiac
Needle, Francis.....M
Newcomb, Arnold B.....Berkley
Norup, John.....Berkley
Nosanchuk, Joseph.....M
Ohlmacher, A. P.....M
Olsen, Richard E.....M
Pauli, Theodore H.....Pontiac
Pool, H. H.....Pontiac
Porritt, Ross J.....M
Ports, Preston W.....M
Prevette, Isaac C.....Pontiac
Raynale, George P.....Birmingham
Reid, Fred T.....Clawson
Riker, Aaron D.....Pontiac
Roehm, Harold R.....Birmingham
Ross, Worth.....Bloomfield Hills
Rowley, Laurie G.....Drayton Plains
Russell, Vincent P.....M
St. John, Harold A.....Pontiac
Schlecte, Carl.....M
Schlecte, Eve Marian.....Rochester
Schoenfeld, John B.....M
Schuneman, Howard.....Ferndale
Seaborn, A. J.....Royal Oak
Shadley, Maxwell.....M
Sheffield, L. C.....Pontiac
Sibley, H. A.....Pontiac
Simpson, E. K.....Pontiac
Smith, Carleton A.....M
Smith, Donald S.....M
Smith, Ellen.....Pontiac
Spears, M. L.....Pontiac
Spencer, Lloyd H.....M
Spoehr, Eugene L.....Ferndale
Spohn, Earl W.....M
Stahl, Harold F.....Oxford
Stanley, Wm. F.....M
Starker, Clarence T.....Pontiac
Steinberg, Norman.....Royal Oak
Stolpman, A. K.....M
Sutton, Palmer.....Royal Oak
Swickle, Edward F.....Royal Oak
Tuck, Raymond G.....Pontiac
Uloth, Milton J.....Ortonville
Vatz, Jack A.....Pontiac
Wagley, P. V.....Pontiac
Wagner, Ruth E.....Royal Oak
Warner, J. F.....Pontiac
Wentz, A. E.....M
Young, Arthur R.....Pontiac

Oceana County

Flint, Charles.....M
Hayton, A. R.....Shelby
Heard, Wm.....Pentwater
Heysett, Norman W.....Pentwater
Jensen, Viggo.....Shelby
Lemke, Walter M.....M
Munger, L. P.....Hart
Nicholson, John H.....Hart
Reetz, Fred A.....Shelby
Robinson, W. Gordon.....M
Wood, Merle G.....Hart

Ontonagon County

Bender, Jesse L.....Mass
Hogue, H. B.....Ewen
Rubinfeld, S. H.....M
Strong, W. F.....Ontonagon

Ottawa County

Beernink, E. H.....Grand Haven
Bloemendaal, D. C.....Zeeland
Bloemendal, W. B.....Grand Haven
Boone, Cornelius E.....Zeeland
Clark, Nelson H.....M
Cook, Carl S.....M
Costello, Clarence Vincent....Holland
DeYounge, Fred.....Spring Lake..M
DeVries, H. C.....Holland
Hager, R.....M
Hamelink, M. H.....Holland
Harms, H. P.....M
Kemme, Gerrit.....Zeeland
Kitchel, John.....Grand Haven
Kitchel, Mary.....Grand Haven
Kools, William Clarence.....Holland
Leenhouts, Abraham.....(E)..Holland
Longe, C. E.....Grand Haven
Nichols, Rudolph H.....Holland
Nykamp, Russell.....Zeeland
Presley, Wm. J.....Grand Haven
Rypkema, Willard M.....M
Stickley, A. E.....Coopersville
Ten Have, Ralph.....Grand Haven
Timmerman, E. C.....M
Van Appledorn, Chester J.....Holland
Van Der Berg, E.....Holland
Van der Velde, O.....Holland
Wells, Kenneth.....M
Westrate, William.....Holland
Winter, John K.....Holland
Winter, Wm. G.....M

Saginaw County

Ackerman, G. L.....M
Bagley, U. S.....Saginaw
Bagshaw, David E.....Saginaw
Berberovich, T. F.....Saginaw
Bishop, H. M.....M
Brender, Fred P.....Frankenmuth
Brock, W. H.....Saginaw
Bruton, Martin F.....Saginaw
Busch, Frank J.....Saginaw
Butler, M. G.....M
Button, A. C.....Saginaw
Cady, F. J.....Saginaw
Cameron, Allen K.....Saginaw
Campbell, L. A.....Saginaw
Catizone, R. J.....Merrill
Chisena, Peter R.....M
Claytor, Archer A.....Saginaw
Cortopassi, Andre.....Saginaw
Cortopassi, V. E.....M
Cory, C. W.....M
Curts, James.....M
Durman, Donald C.....Saginaw
Ely, C. W.....Saginaw
Eymer, Esther.....Saginaw
Fleschner, Thos. E.....Birch Run
Galsterer, Edwin C.....Saginaw
Gerber, Herbert.....M
Goman, Louis D.....Saginaw
Grigg, Arthur.....(E)..Saginaw
Grigg, Arthur P.....M
Hand, Eugene.....M
Harvie, L. C.....Saginaw
Helmkamp, Herbert O.....Saginaw
Hohn, Fred J., Jr.....Saginaw
Howell, Don M.....Saginaw
Imerman, Harold M.....M
Jaenichen, R.....Saginaw
James, J. W.....M
Jiroch, R. S.....Saginaw
Jordan, Leo A.....Saginaw
Keller, S. S.....Saginaw
Kemp, J. N.....Saginaw
Kempton, R. M.....Saginaw
Kerr, William.....M
Kirchgeorg, Clemens G...Frankenmuth
Kleekamp, H. G.....Saginaw
Knott, Harriet A.....Lapeer
Kowals, F. V.....Saginaw
Ling, Ernest M.....Hemlock
Lohr, O. W.....Saginaw
Longstreet, Martha L.....Saginaw
Luger, F. E.....M
Lurie, Robert.....M
Lyle, R. C.....Bridgeport
MacKinnon, Edward D.....Saginaw
MacMeekin, James Ware.....M
Martzowka, Wm. P.....Saginaw
Maurer, John A.....M
Mayne, Harold.....Saginaw
McKinney, Alex R.....Saginaw
McLandress, Joshua A.....Saginaw
Meyer, Henry J.....Saginaw
Mikan, V. Robert.....Saginaw
Moon, A. R.....Saginaw
Mudd, Richard D.....M
Murphy, Albert P.....Saginaw
Murray, Chas. R.....M
Murray, M. J.....Saginaw
Novy, F. O.....Saginaw
O'Reilly, William J.....(E)..Saginaw
Ostrander, Frank W.....Freeland
Phillips, Homer A.....M
Pietz, Frederick.....Saginaw
Pillsbury, Edward A.....Frankenmuth
Potvin, Clifford D.....M
Poole, Frank A.....Saginaw
Richards, Ned W.....M
Richter, Harry J.....M
Ryan, M. D.....(E)..Saginaw
Ryan, R. S.....M
Sample, J. T.....Saginaw
Sargent, D. V.....M
Schaiberger, Elmer G.....Saginaw
Schneider, Alexander.....M
Sheldon, S. A.....M
Skrowronski, Casimer A.....Saginaw
Slack, Walter K.....M
Stahly, Edward H.....Saginaw
Stander, A. C.....M
Stewart, George W.....M
Thomas, Dale.....Saginaw
Tiedke, G. E.....M
Toshach, C. E.....Saginaw
Treshler, H. J.....Gwinn
Wallace, Herbert C.....M
Westlund, Norman.....Saginaw
Wilson, H. Roy.....Saginaw
Yntema, S.....M

Sanilac County

Blanchard, E. W.....Deckerville
Ellis, N. J.....Croswell
Gift, W. A.....Marlette
Hart, R. K.....Croswell
Koch, D.....M
Learmont, H. H.....Croswell
McGunegle, K. T.....Sandusky
Norgaard, Hal V.....M
Seager, M. Cole.....Brown City
Sebille, Louis Joseph.....M
Tweedie, G. Evans.....Sandusky
Tweedie, S. Martin.....Sandusky
Webster, John C.....Marlette

Shiawassee County

Arnold, Alfred L., Jr.....Owosso
Arnold, A. L., Sr.....(E)..Owosso
Backe, John C.....M
Bennett, George W.....Elsie
Brandell, J. M.....M
Brown, Richard J.....M
Buzzard, Walter D.....M
Fillinger, W. B.....Ovid
Hoshal, Vern L.....Durand
Hume, Arthur M.....(E)..Owosso
Hume, Harold A.....Owosso
Janci, Julius.....M
Lenden, V. E.....M
Merz, W. L.....Chesaning
McKnight, E. R.....M
Parker, W. T.....Owosso
Pochert, R. C.....Owosso
Richards, C. J.....Durand
Shepherd, W. F.....Owosso
Slagh, E. M.....Elsie
Soule, Glenn T.....Henderson
Watts, Fred A.....Owosso
Weinkauf, W. F.....Corunna
Weston, C. L.....Owosso
Wilcox, Anna L.....Owosso
Wilcox, C. M.....M

St. Clair County

Armsbury, A. B.....Marine City
Atkinson, J. M.....Port Huron
Attridge, J. A.....Port Huron
Banting, K. C.....M
Battley, J. C. S.....Port Huron
Beck, Frank K.....Port Huron
Biggar, R. J.....M
Borden, C. L.....Port Huron
Boughner, W. H.....Algonac
Bovee, M. E.....Port Huron
Brush, Howard O.....Port Huron
Burke, Ralph M.....Port Huron
Burley, Jacob H.....Port Huron
Callery, A. L.....Port Huron
Carey, Lewis M.....Detroit
Carney, F. V.....St. Clair
Clyne, B. C.....M
Cooper, T. H.....Port Huron
DeGurse, T. E.....Marine City
Derck, W. P.....Port Huron
Edwards, Albert C.....Port Huron
Feldman, Gordon G.....Yale
Fraser, Robert C.....Port Huron
Hall, W. E. B.....Port Huron
Holcomb, R. J.....Marine City
Kesl, Geo. Matthew.....Port Huron
Le Galley, K. B.....M
Licker, R. R.....M
Ludwig, F. E.....M
Martin, C. S.....Port Huron
McColl, D. J.....Port Huron
McColl, Neil J.....Port Huron
MacPherson, C. A.....St. Clair
Meredith, E. W.....Port Huron
Patterson, D. Webster.....Port Huron
Pollock, Donald A.....Yale
Reynolds, Annie E.....Port Huron
Ryerson, W. W.....Port Huron
Schaefer, W. A.....Port Huron
Searles, Karl F.....Capac
Sites, E. C.....Port Huron
Thomas, C. F.....Port Huron

Treadgold, Douglas.....Port Huron
Vroman, M. E.....Port Huron
Ware, John R.....Port Huron
Wass, Henry C.....St. Clair
Waters, George.....Port Huron
Wellman, Joseph E.....Port Huron
Wight, William G.....Yale
Witter, Gordon L.....M
Zemmer, A. L.....Port Huron

St. Joseph County

Berg, Lawrence A.....M
Blood, J. V.....Three Rivers
Brunson, A. E.....Colon
Corkill, C. C.....White Pigeon
Fiegel, S. A.....M
Fortner, R. J.....Three Rivers
Hoekman, Aben.....M
Holm, Arvid G.....M
Kane, David M.....Sturgis
Miller, C. G.....Sturgis
Parrish, Marion.....Sturgis
Pennington, H. C.....M
Raisch, Fred J.....M
Reed, Fred R.....Three Rivers
Rice, John W.....M
Shaw, G. D.....M
Sheldon, J. P.....M
Slote, L. K.....Constantine
Springer, R. A.....Centerville
Sweetland, G. J.....Constantine
Weir, Dale C.....Three Rivers
Wilkerson, Nina C.....Sturgis
Zimont, R. D.....M

Tuscola County

Barbour, Harry A.....Mayville
Bates, George.....(E)..Kingston
Dickerson, Willard W.....Caro
Dixon, Robert L.....Wahjamega
Donahue, H. Theron.....Cass City
Fisher, Robert E.....M
Gugino, Frank James.....M
Hoffman, T. E.....M
Howlett, R. R.....M
Johnson, O. G.....Mayville
Merrill, Elmer H.....Caro
Savage, L. L.....Caro
Vail, Harry F.....M

Van Buren County

Boothby, Carl.....M
Boothby, F. M.....Lawrence
Boothby, Paul R.....M
Bope, William P.....Decatur
Buckborough, M. W.....South Haven
Diephuis, Bert.....M
French, Merle R.....Paw Paw
Gano, Avison.....M
Giddings, Ralph R.....M
Giffen, John R.....Bangor
Greenman, Newton H.....Decatur
Hall, E. J.....M
Hasty, Willis A.....M
Hoyt, W. F.....(E)..Paw Paw
Iseman, Joseph W.....M
Itzen, J. F.....South Haven
Laird, Emma.....Paw Paw
Lowe, Edwin G.....Bangor
Maxwell, J. Charles.....Paw Paw
McNabb, A. A.....Kalamazoo
Murphy, Norman B.....Bangor
Penoyar, C. L.....South Haven
Sayre, Phillip P.....Onsted
Spalding, R. W.....Gobles
Steele, Arthur H.....Paw Paw
TenHouten, Chas.....M
Terwilliger, Edwin.....M
Urist, Martin J.....South Haven
Williams, F. N.....Hartford
Young, William R.....Lawton

Washtenaw County

Adock, John D.....Ann Arbor
Agate, George H.....M
Alexander, John.....Ann Arbor
Andros, George J.....Ann Arbor
Armstrong, Richard C.....M
Badgley, Carl E.....Ann Arbor
Baer, Louis S.....M
Baker, David M.....M
Baker, R. Ray.....Ann Arbor
Barker, Paul S.....Ann Arbor
Barnes, Allan C.....M
Barnwell, John B.....Ann Arbor
Barr, Albert S.....Ann Arbor
Barss, H. D.....Ypsilanti
Bass, Thomas J.....Ypsilanti
Bassett, Robert C.....Ann Arbor
Bassow, Paul H.....Ann Arbor
Bauer, Gerhard H.....M
Bauer, Jere M.....Ann Arbor
Baugh, Richard H.....Ann Arbor
Beall, John G.....Ann Arbor
Beebe, Hugh M.....Ann Arbor
Bell, Margaret.....Ann Arbor
Belser, Walter.....Ann Arbor
Bethell, Frank H.....Ann Arbor
Boyer, Philip A.....Ann Arbor
Brace, William M.....Ann Arbor
Breakey, J. F.....(R)..Ann Arbor
Britton, H. B.....Ypsilanti
Brown, Philip N.....Ypsilanti
Bruce, James D.....Ann Arbor
Bryant, W. Leroy.....Ann Arbor
Bullington, Bert M.....M
Bulmer, Dan J.....M
Buscaglia, C. J.....M
Buxton, Robert W.....Ann Arbor
Camp, C. D.....Ann Arbor
Clarke, Robert B.....Ann Arbor
Clements, Glenn T.....Ann Arbor
Cody, Claude Carr.....Ann Arbor
Coller, Frederick A.....Ann Arbor
Conger, Kryl B.....M
Conn, Jerome W.....Ann Arbor
Cooper, Ralph R.....M
Coxon, Alfred W.....Ann Arbor
Crabtree, Peter.....M
Cummings, Howard H.....Ann Arbor
Cummings, Robert H.....M
Curtis, Arthur C.....Ann Arbor
Davis, Fenimore E.....M
Day, A. Jackson.....M
deAlvarez-Skinner, Russell R.....M
DeJong, Russell N.....Ann Arbor
DeTar, John S.....Milan
Dimitroff, Sim.....M
Dingman, Reed O.....Grand Rapids
Donaldson, S. W.....Ann Arbor
Dowman, Charles E.....M
Duff, Ivan F.....M
Emerson, Herbert W.....Ann Arbor
Engelke, Otto K.....Ann Arbor
Everett, Meldon.....M
Falls, Harold F.....Ann Arbor
Farrior, J. Brown.....M
Fitzgerald, Thomas D.....M
Fletcher, Donald B.....M
Forsythe, Warren E.....Ann Arbor
Foster, D. Bernard.....M
Fralick, F. Bruce.....Ann Arbor
Friedman, Harford W.....Ann Arbor
Frye, Carl H.....Ann Arbor
Furstenberg, A. C.....Ann Arbor
Ganzhorn, Edwin C.....Ann Arbor
Gardiner, Sprague H.....M
Gates, John L.....Ann Arbor
Gates, Neil A.....Ann Arbor
Green, Merwin E.....M
Grekin, John N.....Ann Arbor
Gule, Andros.....Chelsea
Haas, Reynold L.....Ann Arbor
Hagerman, George W.....M
Haight, Cameron.....Ann Arbor
Hammond, George.....M
Hammond, W. W., Jr.....Plymouth
Handorf, Heinrich H.....Northville
Hannum, M. R.....Milan
Harris, B. M.....M
Henry, L. Dell.....Ann Arbor
High, Howard C., Jr.....M
Himler, Leonard E.....Ann Arbor
Hirschfield, Alexander H.....M
Hoagland, Thomas V.....Ypsilanti
Hodges, Fred J.....Ann Arbor
Holt, John F.....Ann Arbor
Howard, S. C.....Ann Arbor
Howes, Homer A.....M
Hunt, Homer H.....M
Jay, Baird D.....M
Jimenez, Buenaventura.....Ann Arbor
Johnson, L. J.....M
Johnston, Sture A. M.....Ann Arbor
Jordan, Paul H.....M
Kahn, Edgar A.....M
Kambly, Arnold H.....M
Keller, Arthur P.....M
Kemper, John W.....Ann Arbor
Kiehn, Clifford L.....M
Kimbrough, Robert C., Jr.....M
Kleinschmidt, Earl E.....M
Kleinschmidt, Gladys J.....Mt. Pleasant
Klingman, Theophil.....Ann Arbor
Klunzinger, Willard R.....Ann Arbor
Knoll, Leo A.....Ann Arbor
LaFever, Sidney L.....Ann Arbor
Lampe, Isadore.....Ann Arbor
Law, John L.....Ann Arbor
Levin, Manuel.....M
Lichty, Dorman E.....Ann Arbor
List, Carl F.....Ann Arbor
Lowell, Vivion F.....M
Lynn, Harold Philip.....Ypsilanti
Lyons, Richard H.....Ann Arbor
McCotter, Rollo E.....Ann Arbor
McEachern, Thomas H.....Ann Arbor
MacIntyre, Dugald S.....M
MacKaye, Lavinia G.....Ann Arbor
Malcolm, Karl D.....Ann Arbor
Marshall, Mark.....Ann Arbor
Martin, Donald W.....Ypsilanti
Maxwell, James H.....Ann Arbor
Milford, Albert F.....Ypsilanti
Miller, Harold A.....M
Miller, Norman F.....Ann Arbor
Moore, Donald F.....M
Morrow, Grant.....Ann Arbor
Muehlig, George F.....Ann Arbor
Myers, Dean W.....Ann Arbor
Nesbit, Reed M.....Ann Arbor
Newton, Charles W.....Ann Arbor
Northway, Robert O.....Ann Arbor
Oliphant, L. W. (Mrs.)...Barton Hills
Palmer, A. A.....M
Parsons, Robert J.....M
Patrick, Gilbert T.....Ann Arbor
Patterson, Ralph M.....Ann Arbor
Pearson, Edwin O.....Ann Arbor
Peet, Max M.....Ann Arbor
Pillsbury, Charles B.....Ypsilanti
Pollard, H. Marvin.....Ann Arbor
Potter, Marcia.....Ypsilanti
Power, Frank H.....M
Price, Helen F.....Ann Arbor
Prout, Gordon J.....Saline
Quirk, Edmund J.....Chelsea
Rague, Paul O.....M
Ransom, Henry K.....Ann Arbor
Raphael, Theophile.....Ann Arbor
Ratliff, Rigdon K.....Barton Hills
Rawling, Frank F. A.....Ann Arbor
Reynolds, Stephen.....M
Riecker, Herman H.....Ann Arbor
Riggs, Harold.....Ann Arbor
Robb, David N.....Ypsilanti
Rosekrans, Sarah D.....Ann Arbor
Rosenbaum, Francis F.....Ann Arbor
Ross, C. Howard.....Barton Hills
Salon, Dayton D.....M
Sauer, William N.....Ann Arbor
Schumacher, W. E.....Ann Arbor
Scott, Robert R.....M
Scott, William C.....M

Scurry, Maurice....M
Seevers, Maurice H....Ann Arbor
Seime, Reuben I....Ypsilanti
Sibbald, Malcolm....Chelsea
Sinai, Nathan....Ann Arbor
Sink, Emory W....Ann Arbor
Smalley, Marianna....Ann Arbor
Smith, Eleanor....Ann Arbor
Smith, Joseph G....M
Snow, Glenadine....Ypsilanti
Solis, Jeanne C....(E)..Ann Arbor
Stoddard, Frederick J....M
Sturgis, Cyrus C....Ann Arbor
Sundwall, John....Ann Arbor
Teed, R. Wallace....M
Thieme, E. Thurston....M
Towsley, Harry A....M
Trimby, Robert H....Ann Arbor
Valk, William L....M
Waggoner, Raymond W....Ann Arbor
Waldron, Alexander M....M
Wallace, J. B....(R)..Saline
Wanstrom, Ruth C....Ann Arbor
Washburne, C. L....Ann Arbor
Watson, Ernest H....Ann Arbor
Weller, Carl V....Ann Arbor
Wellman, Waldron W....Ypsilanti
Wessinger, John A....(E)..Ann Arbor
Wile, Udo J....M
Williams, Howard R....Ann Arbor
Williamson, F. B....Ypsilanti
Wilson, Frank N....Ann Arbor
Wilson, James L....Ann Arbor
Wisdom, Inez R....Ann Arbor
Woods, J. J....Ypsilanti
Worth, Melissa H....Ypsilanti
Wright, W. J....Ypsilanti
Wylie, W. C....Dexter
Yoder, O. R....Ypsilanti

Wayne County

Aaron, Charles D....(E)..Detroit
Abbott, William E....Detroit
Abrams, Harry M....Detroit
Abramson, Max....Detroit
Abruzzo, Anthony M....M
Adams, James Robert....Dearborn
Adelson, Sidney L....M
Adler, Sidney....M
Agins, Jacob....Detroit
Agnelly, Edward J....Detroit
Agnew, George H....Detroit
Albrecht, Herman, F....Detroit
Alderman, R. F....Detroit
Aldrich, E. Gordon....Detroit
Aldrich, Napier....M
Allen, John V....Lincoln Park
Alles, Russell W....Detroit
Allison, Frank B....Detroit
Allison, Herbert C..Grosse Pte. Farms
Altman, Raphael....Detroit
Altshuler, Abraham M....Detroit
Altshuler, Ira M....Detroit
Altshuler, Samuel S....M
Amberg, Emil (E)....Detroit
Amolsch, Arthur Lewis....Detroit
Amos, Thomas G....Detroit
Anderson, Bruce....Detroit
Anderson, Gordon H....M
Anderson, J. O....Detroit
Anderson, Walter L....M
Anderson, Walter T....Detroit
Andries, George G....Detroit
Andries, J. H....Detroit
Andries, Raymond C....Detroit
Ankley, J. W....Detroit
Annessa, Dommenico Marcilli..Detroit
Anslow, Robert E....Detroit
Appel, Phillip R....Detroit
Appelman, H. B....Detroit
Arehart, Burke W....M
Arent, John G....Detroit
Armstrong, Arthur G....Detroit
Arnold, William J....Detroit
Arnold, Effie....Detroit
Aronstam, Noah E....Detroit
Arrington, Robyn J....Detroit
Ascher, Meyer S....M
Ashe, Stilson R....Detroit
Ashley, L. Bryan....M
Ashton, F. B....Highland Park
Asselin, J. L....Detroit
Asselin, Regis F....M
Athay, Roland M....Detroit
Atchison, Russell M....Northville
Atler, Lawrence R....Detroit
Atler, Leroy L....M
Aubel, M. E....Detroit
August, Harry E....M
Auld, Douglas V....Wayne
Axelrod, Stanley H....Detroit
Axelson, A. U....Detroit
Babcock, Kenneth B....M
Babcock, L. K....Detroit
Babcock, Myra E....Detroit
Babcock, W. W....Detroit
Bacalis, Anastasios....Detroit
Bach, Walter F....Detroit
Bachman, Morris E....Detroit
Bacon, Vinton A....Detroit
Baer, George J....Detroit
Baer, Raymond B....Detroit
Baeff, Michael A....Detroit
Bagley, Harry E....M
Bailey, Carl C....M
Bailey, Don A....Detroit
Bailey, Louis J....Detroit
Baker, Clarence....Detroit
Bakst, Joseph....Detroit
Balcerski, Matthew A....Detroit
Ballard, Charles S....Detroit
Balser, Chas. W....Detroit
Baltz, James I....Detroit
Baranowski, A. W....Detroit
Barnes, Donald J....Detroit
Barnett, Saul E....Detroit
Barnett, Louis L....Detroit
Barnett, Morton....Detroit
Barone, Charles J....Highland Park
Barrett, Wyman D....Detroit
Barron, William H....Detroit
Bartemeier, Leo H....Detroit
Barton, J. R....Detroit
Bates, Gaylord....M
Bates, Morton....Wayne
Bauer, Benedict J....Detroit
Bauer, A. Robert....Detroit
Bauer, Lester Eugene....M
Baumann, W. L....Detroit
Baumer, Moe....M
Baumgarten, Elden C....Detroit
Bayles, John G....Detroit
Beach, Watson....Detroit
Beam, A. Duane....M
Beaton, Colin....M
Beattie, Robert....Detroit
Beaver, Donald C....Detroit
Beck, Eva F....Eloise
Becker, Abraham....M
Becker, Jos. Wm....Detroit
Becklein, C. L....Detroit
Beckwitt, M. C....M
Bedell, A....Detroit
Beer, Joseph F....M
Beeuwkes, L. E....M
Begle, H. L....Detroit
Behn, Claud W....Detroit
Beigler, Sydney K....Detroit
Beitman, Max R....M
Belanger, Ernest E....M
Belanger, Henry....Detroit
Belanger, Wm. George....M
Belknap, Warren E....M
Bell, J. Kenner....Detroit
Bennett, Germany E....Detroit
Bennett, Harry B....Detroit
Bennett, Sanford A....Detroit
Bennett, Zina B....Detroit
Benson, C. D....M
Benson, Davis....M
Benson, Virginia....Detroit
Bentley, Frederick E....Plymouth
Bentley, Neil I....Detroit
Berent, Morris S....Detroit
Beresh, Louis....M
Berge, Clarence A....Detroit
Bergman, Murray Stewart....Detroit
Bergo, Howard L....M
Berke, Sydney S....Detroit
Berkey, Wm. E....Detroit
Berlien, Ivan C....M
Berman, Lawrence....Detroit
Berman, Robert....Detroit
Berman, Sidney....M
Bernard, Walter G....Detroit
Bernbaum, Bernard....Detroit
Bernstein, Albert E....Detroit
Bernstein, Samuel S....M
Besancon, J. H....M
Best, T. H. Edward....Detroit
Bicknell, Edgar A....M
Bicknell, Frank B....M
Bicknell, Nathan J....Detroit
Birch, John R....M
Birkelo, Carl C....Detroit
Bittker, I. Irving....Detroit
Black, Perry S....Detroit
Blain, Alexander, III....Detroit
Blain, Alexander W....Detroit
Blain, James H., Jr....M
Blair, K. E....Detroit
Blanchet, Alfred D....Detroit
Blashill, James B....M
Blau, Morris H....Detroit
Bleier, Joseph....Detroit
Bloch, Abraham....Detroit
Blodgett, William E....Detroit
Blodgett, William H....M
Bloom, Arthur R....Detroit
Bloomer, Earl....Dearborn
Blumenthal, Franz L....Detroit
Boccaccio, John....M
Boccia, James J....M
Boddie, Lewis Franklin....Detroit
Boddie, Arthur W....Detroit
Boehm, John D....Detroit
Boell, Arthur F....Detroit
Bogusz, Ladislaus....Eloise
Bohn, Stephen....M
Boileau, Thornton I....M
Boles, A. E....M
Bookmyer, R. H....Detroit
Bookstein, Abraham M....M
Boutrous, Thomas A....Detroit
Bovill, Edwin G....M
Bower, Franklin T....Detroit
Bowers, Leo J....Detroit
Bowman, Frank E....Detroit
Boyd, John H....Trenton
Brachman, D. S....Detroit
Bracken, Andrew H....Dearborn
Bradford, Henry....M
Bradley, George....Detroit
Bradshaw, Wm. H....Detroit
Brady, Herbert A....River Rouge
Braitman, Louis....Detroit
Brancheau, L. T....M
Braley, W. N....Detroit
Bramigk, F. W....Detroit
Brand, Benjamin....Detroit
Brando, Russell G....Detroit
Brandt, Edward L....Detroit
Braun, Lionel....M
Brekke, Viola G....Detroit
Breitenbecher, Edw. R....Detroit
Brengle, Deane R....Detroit
Breon, Guy L....Detroit
Briegel, Walter A....Detroit
Brines, O. A....M
Bringard, Elmer L....M
Brisbois, Harold J....Plymouth
Bromme, William....M
Brooks, A. L....Detroit
Brooks, Clark D....Detroit
Brooks, Charles W....M
Brooks, Nathan....M
Brosius, William L....Detroit
Broudo, Philip H....Detroit
Brough, Glen A....M
Brouwer, Stephen W....Detroit
Brown, A. O....Detroit
Brown, Carlton F....M
Brown, Frances....Detroit
Brown, Gordon T....Detroit
Brown, Harvey F....Detroit
Brown, Henry S....Detroit
Brown, John R....M
Brown, Samuel M....Detroit
Brown, Stanley H....Detroit
Brown, Thomas A....Detroit
Brownell, Paul G....M
Bruehl, Richard....Detroit
Brunk, Andrew S....Detroit
Brunk, Clifford F....Detroit
Brunke, Bruno B....Detroit
Brush, Brock Edwin....Detroit
Bryce, John D....M
Buchanan, W. Paul....Detroit
Buchner, Harold W....M
Buck, John D....Detroit
Budson, Daniel....Detroit
Buell, Charles E., Jr....Detroit
Buesser, Frederick G....Detroit
Buller, H. L....Detroit
Burbidge, Earl L....Detroit
Burby, John J....Detroit
Burgess, Chas. M....Detroit
Burgess, Jay M....Detroit
Burnham, David C....Detroit
Burnstine, Julius Y....Detroit
Burnstine, Perry P....M
Bundrant, Herschel B....Detroit
Burr, George C....Detroit
Burr, H. Leonard....Grosse Pointe
Burrows, Howard A....Dearborn

Burstein, Harry S.....Detroit
Burstein, I. Marvin.....Detroit
Burstein, Morris M.....Detroit
Burton, D. T.....Detroit
Bush, Glendon.....M
Bush, Lowell M.....Detroit
Buss, John A.....Detroit
Butler, Harry J.....Detroit
Butler, L. H.....Detroit
Butler, Volney N.....Detroit
Butterworth, Herman....Lincoln Park
Buttrum, Edward J.....Detroit
Byers, Dudley W.....Detroit
Byington, Garner M.....Detroit
Cadieux, Henry W.....Detroit
Caldwell, J. Ewart.....M
Caldwell, George L.....Detroit
Calkins, H. N.....M
Callaghan, T. T.....M
Cameron, A. H.....Wyandotte
Campau, George H.....Detroit
Campbell, Duncan.....Detroit
Campbell, Duncan A.....Detroit
Campbell, Malcolm D.....Detroit
Campbell, Mary B.....Detroit
Candler, Clarence L.....Detroit
Canter, Allie L.....Detroit
Canter, G. E.....Detroit
Capano, Oreste A.....M
Caplan, Leslie.....M
Caputo, Joseph M.....M
Caraway, Jas. E.....M
Carbone, Louis A.....Detroit
Carey, Cornelius.....Detroit
Carleton, L. H.....Detroit
Carlucci, Peter F.....Detroit
Carmichael, E. K.....Detroit
Carnes, Harry E.....M
Carney, John W.....M
Carp, Joseph.....M
Carpenter, C. H.....Detroit
Carpenter, C. J.....Detroit
Carpenter, Glenn B.....Detroit
Carr, J. G.....Detroit
Carroll, E. H.....Detroit
Carroll, Lona B.....Detroit
Carson, Herman J.....Detroit
Carstens, Henry R.....M
Carter, John M.....Detroit
Carter, L. F.....Detroit
Cassidy, Wm. J.....Detroit
Castrop, C. W.....Dearborn
Cathcart, Edward.....M
Catherwood, Albert E.....Detroit
Caton, Dorothy.....Detroit
Caughey, Edgar H.....M
Cavell, Roscoe Wm.....M
Cetlinski, C. A.....Hamtramck
Chabut, V. George.....Northville
Chall, Henry G.....Detroit
Chalat, Jacob H.....Detroit
Chance, J. H.....Detroit
Chapman, Aaron L.....Detroit
Chapman, Paul T.....Detroit
Chapnick, H. A.....M
Chase, Clyde H.....Detroit
Chatel, Arthur N.....Detroit
Chester, W. P.....Detroit
Chesluk, H. M.....M
Childs, George Millard.....M
Chipman, W. A.....Detroit
Chittenden, Geo E.....M
Chittick, William R. (E).....San Diego, Cal.
Chostner, G. C.....Detroit
Christensen, C. A.....Dearborn
Christopher, James G.....Detroit
Chrouch, Laurence A.....Detroit
Cioffari, Mario S.....Detroit
Ciprian, Joseph E.....Detroit
Clark, Benjamin W.....M
Clark, C. M.....Detroit
Clark, Donald V.....Detroit
Clark, George E. (E).....Detroit
Clark, Harold E.....Detroit
Clark, Harry G.....Detroit
Clark, Harry L.....Detroit
Clark, Ronald E.....Detroit
Clarke, George L.....Detroit
Clarke, Niles A.....M
Clarke, Norman E.....Detroit
Clifford, C. H.....Detroit
Clifford, John E.....Detroit
Clifford, Thomas P.....Detroit
Clippert, J. C.....Grosse Ile
Coan, Glenn L.....Wyandotte
Coates, Carl Amos.....Dearborn
Cobane, John H.....Detroit
Cochrane, Edgar G.....Detroit
Cohn, Daniel E.....M
Cohoe, Don A.....Detroit
Cole, Fred H.....Detroit
Cole, James E.....Detroit
Cole, Wyman C. C.....M
Coleman, Margarete W.....Detroit
Coleman, Wm. G.....Redford
Coll, Howard R.....Detroit
Collings, M. Raymond.....Detroit
Collins, Arthur D.....M
Collins, James D.....Detroit
Colvin, Leslie T.....Detroit
Colyer, Raymond G.....Detroit
Comstock, Lawrence.....Trenton
Connelly, Richard C.....Detroit
Connolly, Frank.....Detroit
Connolly, John P.....Detroit
Conley, L. C. M.....Detroit
Connors, J. J.....Detroit
Conrad, E. R.....Detroit
Constable, Canute G.....Detroit
Cooksey, Warren B.....Detroit
Cook, James C.....M
Coolidge, M. Belle.....Grosse Pt. Park
Cooper, E. L.....Detroit
Cooper, James B.....Detroit
Corbeille, Catherine.....Detroit
Coseglia, Robert P.....Detroit
Costello, Russell T.....Detroit
Cotruro, L. D.....Detroit
Cotton, S. O.....Detroit
Coucke, Henry O.....M
Coulter, Wm. J.....M
Cowan, Wilfrid.....Detroit
Cowen, Leon B.....Detroit
Cowen, Robert L.....Detroit
Coyne, Douglas Ruthven.....Detroit
Craig, Henry R.....Eloise
Crane, Langdon T.....Detroit
Cree, Walter J.....(E)..Detroit
Crews, Thomas H.....Detroit
Croll, L. J.....M
Cross, Harold E.....Detroit
Crossen, Henry F.....Detroit
Croushore, J. E.....M
Cruikshank, Alexander.....Detroit
Culp, Ormond.....M
Curhan, Jos. Howard.....Detroit
Curry, F. S.....Detroit
Curtis, Frank E.....Detroit
Cushing, Russell G.....Detroit
Cushman, H. P.....Detroit
Dale, Esther H.....Detroit
Dana, Harold M.....M
Danforth, J. C.....Detroit
Danforth, M. E.....Detroit
Daniels, L. E.....Detroit
Darling, Milton A.....Detroit
Darpin, Peter H.....Detroit
Davidow, David M.....Detroit
Davidson, Harry O.....M
Davies, Thos. S.....Grosse Pt.
Davies, Windsor S.....M
Davis, Egbert F.....Wyandotte
Davis, George H.....M
Davis, Lindon Lee.....M
Dawson, F. E.....Inkster
Dawson, Ralph W.....Detroit
Dawson, W. A.....Inkster
Day, J. Claude.....M
Defever, Cyril R.....M
Defnet, William A.....Detroit
DeGroat, Albert.....M
DeJongh, Edwin.....Detroit
Delbert, Stewart G.....M
Dempster, James H.....Detroit
DeNike, A. James.....Detroit
Denis, George M.....Detroit
Denison, Louis L.....Detroit
De Ponio, Sylvester A.....Detroit
Derby, Arthur P.....Detroit
Derleth, Paul E.....M
DeSpelder, Ray E.....Detroit
DeTomasi, Rome Q.....Detroit
Dibble, Harry F.....Detroit
Dickman, Harry M.....M
Dickson, B. R.....Detroit
Dickson, Elias L.....Detroit
Diebel, Nelson W.....Detroit
Dietzel, H. O.....Detroit
Dill, Hugh L.....Detroit
Dill, J. Lewis.....Detroit
DiLoreto, Panfilo, Camillo.....M
Dittmer, Edwin.....Detroit
Dixon, Fred W.....M
Dixon, Ray S.....Detroit
Dodds, John C.....Detroit
Dodenhoff, C. F.....Detroit
Dodrill, F. D.....Ann Arbor
Doerr, Louis E.....M
Dolega, Stanley F.....M
Dolman, E. Nesbitt.....Detroit
Domzalski, C. A.....Detroit
Donovan, Daniel R., Jr.....Detroit
Donovan, John D.....Dearborn
Dorsey, John M.....Detroit
Doty, Chester A.....Detroit
Doub, Howard P.....Detroit
Douglas, Bruce H.....Detroit
Douglas, Clair L.....M
Dovitz, Benjamin W.....Detroit
Dow, Roy E.....Detroit
Dowdle, Edward.....Detroit
Dowling, H. E.....M
Downer, Ira G.....Detroit
Doyle, Goerge H.....Detroit
Drake, Ellet H.....M
Drake, James J.....Detroit
Draves, Edward F.....Detroit
Drews, Robert S.....Detroit
Drinkhaus, Harold I.....Detroit
Droock, Victor.....Detroit
Dubnove, Aaron.....Detroit
DuBois, Paul W.....Detroit
Dubpernell, Karl.....Detroit
Dubpernell, Martin S.....Detroit
Dudek, John J.....Wyandotte
Duffy, Edward A.....Detroit
Dundas, Edw. M.....Detroit
Dunlap, Henry A.....Detroit
Dunlap, Samson F.....Detroit
Dunn, Cornelius E.....Detroit
Durocher, Edmund J.....Ecorse
Durocher, Normand E.....M
Dutchess, Charles E...New York City
Dwaihy, Paul.....Detroit
Dwyer, Francis.....M
Dysarz, T. T.....Detroit
Dziuba, John F.....Detroit
Eades, Charles C.....M
Eakins, Frederick J.....Berkley
Eaton, Crosby D.....Detroit
Edgar, Russell G.....Detroit
Eder, Joseph R.....M
Eder, Samuel J.....Detroit
Edgar, Irving I.....Detroit
Edmonds, W. N.....Detroit
Edwards, Gilbert Lloyd.....Detroit
Edwards, J. W.....Detroit
Eisman, Clarence H.....Detroit
Elliott, Wm. G.....Detroit
Ellis, Seth W.....M
Elvidge, Robert J.....Detroit
Emmert, Herman C.....Detroit
Engel, Earl H.....M
Ensign, Dwight C.....Detroit
Ensing, Osborn.....Detroit
Epstein, S. G.....Detroit
Erickson, Eldon W.....Detroit
Erickson, Milton H.....Eloise
Erkfitz, Arthur W.....Detroit
Erman, Joseph M.....Detroit
Eschbach, Jos. W.....M
Estabrook, Bert U.....Detroit
Ettinger, Clayton J.....Detroit
Evans, Jos. M.....Detroit
Evans, Leland S.....Redford
Evans, William A., Jr.....M
Ewing, C. H.....M
Falick, Mordecai Louis.....M
Falk, I. E.....Detroit
Fallis, Lawrence S.....Detroit
Fandrich, Theodore.....M
Farbman, Aaron A.....Detroit
Farbman, Simon S.....Detroit
Fauman, David H.....Detroit
Faunce, Sherman P.....Detroit
Felcyn, W. George.....Detroit
Feld, David.....Detroit
Feldstein, Martin Z.....M
Fellers, Ray L.....Detroit
Fenech, Harold B.....M
Fenner, Wm. A.....Detroit
Fenton, E. H.....Detroit
Fenton, Meryl M.....M
Fenton, Russell F.....Detroit
Fenton, Stanley C.....Detroit
Ferguson, Franklin F.....M
Ferrera, Louis V.....M
Ferrara, Virginia M.....Detroit
Fettig, Carl A.....Grosse Pointe Park
Field, G. S. (E).....Detroit
Fine, Edward.....Detroit
Fischer, Frederick J.....M
Fisher, George S.....M
Fisher, O. O.....Detroit
Fisher, R. L.....Detroit
Fitzgerald, E. W.....M
Fitzgerald, James M.....M
Flaherty, H. J.....Detroit
Flaherty, N. W.....M
Flaherty, S. A.....Detroit
Fleming, L. N.....Detroit
Flora, Wm. R.....M
Flower, J. A.....Detroit
Fogt, Herbert E.....Detroit
Fogt, Robert G.....Detroit

Foley, Hugh S.....Dearborn
Foley, Joseph M.....Detroit
Font, Anthony J.....Detroit
Foote, James A.....Detroit
Ford, F. A.....Detroit
Ford, George A.....Detroit
Ford, Sylvester.....M
Ford, Walter D.....Detroit
Fordell, F. S.....Detroit
Forrester, Alex V.....Detroit
Forsythe, John R.....M
Foster, E. Bruce.....M
Foster, Daniel P.....Detroit
Foster, Linus J.....Detroit
Foster, Owen C.....Detroit
Foster, Wm. L.....Detroit
Foster, W. M.....Detroit
Fowler, Melvin E.....Detroit
Fox, Morris Edward.....M
Fraiberg, Paul L.....Detroit
Franjac, M. J.....Dearborn
Franzen, Nils A.....Detroit
Fraser, Eldred E.....Detroit
Fraser, Harvey E.....M
Frazer, Mary Margaret.....Detroit
Freedman, John.....M
Freeman, D. K.....Detroit
Freeman, Mabel.....Detroit
Freeman, Michael.....Detroit
Freeman, Thelma.....Detroit
Freeman, Wilmer.....Detroit
Freese, John A.....Detroit
Freid, Samuel.....Detroit
Fremont, Joseph C.....M
Freund, Hugo A.....Detroit
Fried, Bernard H.....M
Friedlaender, Alex S.....Detroit
Friedman, I. H.....Detroit
Frink, Norman W.....Detroit
Frostic, William D.....M
Frothingham, Geo. E. (E).....Detroit
Fruend, Henrietta.....Detroit
Fullenwider, Allan C.....Detroit
Fuller, Hugh M.....M
Fulgenzi, Andrew A.....M
Gaba, Howard.....M
Gabe, Sigmund.....M
Gaberman, David B.....Detroit
Gaffney, J. Mitchell.....Detroit
Galantowicz, H. C.....Detroit
Galdonyi, Laslo.....Detroit
Galdonyi, Nicholas.....Detroit
Galerneau, D. B.....Center Line
Gamble, Parker B.....Detroit
Gannan, Arthur M.....Detroit
Ganschow, John H.....Detroit
Gariepy, L. J.....Detroit
Garner, Howard B. (E).....Detroit
Gaston, Herbert B.....M
Gates, Nathaniel H.....Detroit
Gaynor, Alex.....Detroit
Gehring, Harold W.....Detroit
Gehrke, August E.....Detroit
Geib, Ledru O.....Detroit
Geib, Wayne A.....M
Geiter, Clyde W.....Detroit
Geitz, Wm. A.....Detroit
Gelbach, Philip D.....Detroit
Gellert, I. S.....Detroit
Gemeroy, J. C.....Detroit
Gerondale, Edmond J.....Detroit
Gibson, James C. (E).....Detroit
Giese, Fred W.....M
Gigante, Nicola.....Detroit
Gignac, Arthur L.....Detroit
Gilbert, Harold R.....Wyandotte
Gilbert, Roy S.....Detroit
Gillman, R. W. (E).....Detroit
Gingold, Samuel M.....M
Gingrich, Wayne A.....M
Ginsberg, Harold I.....M
Gitlin, Charles.....M
Gitlin, Julius R.....Detroit
Gittins, Perry C.....Detroit
Glasgow, Gordon K.....Detroit
Glassman, Samuel.....Detroit
Glazer, Walter S.....Detroit
Gleason, John E.....Detroit
Glees, J. L.....Grosse Pointe Farms
Glemet, Raymond B.....Detroit
Glickman, L. Grant.....M
Glowacki, B. F.....Detroit
Gmeiner, Clarence C.....Detroit
Goerke, Elmer A.....Romulus
Goetz, Angus G.....M
Goins, Wm. F.....Detroit
Goldberg, Arthur.....Detroit
Goldberg, Harry H.....Detroit
Goldberg, Nathan H.....Detroit
Goldin, M. I.....M
Goldman, Perry.....M
Goldsmith, Joseph D.....Detroit
Goldstone, R. R.....Detroit
Gollman, Maurice D.....M
Gonne, William S.....Detroit
Good, William H.....M
Goodrich, B. E.....M
Gordon, William H.....M
Gorelick, Martin J.....M
Gorning, Raymond P.....Detroit
Gottschalk, Fred W.....Detroit
Gould, S. Emanuel.....Eloise
Goux, Raymond S.....Detroit
Grace, Joseph M.....Eloise
Graff, J. M.....Detroit
Grain, Gerald O.....Detroit
Grajewski, Leo E.....Detroit
Gramley, William.....Detroit
Granger, Francis L.....Detroit
Gratton, Henri L.....Detroit
Gravelle, Lawrence J.....Detroit
Green, Ellis R.....Dtroit
Green, Lewis.....Detroit
Green, Louis M.....M
Green, Nelson W.....Detroit
Green, Simpson W.....Detroit
Green, Sydney H.....M
Greenberg, Julius J.....M
Greenberg, Morris Z.....M
Greene, John B.....Detroit
Greenidge, Robert.....Detroit
Greenlee, Wm. Tate.....Detroit
Greiner, Bert A.....Detroit
Grekin, Joseph.....Detroit
Grekin, Samuel L.....Detroit
Griffith, Arthur J.....Detroit
Grillo, S. Phillip.....Belleville
Grimaldi, G. J.....M
Grinstein, Alexander.....Detroit
Grob, Otto.....Detroit
Gronow, A. A.....Detroit
Grossman, Sol.....M
Gruber, T. K.....Eloise
Guimaraes, A. S.....Dearborn
Gurdjian, E. S.....Detroit
Gurman, Ben G.....M
Gutow, Benj. R.....M
Haefele, Leslie, P.....Garden City
Hale, Arthur S.....Detroit
Hall, Arche C.....Detroit
Hall, E. Walter.....Detroit
Hall, James A. J.....Detroit
Hall, Ralph E.....Detroit
Hall, Robert J.....Detroit
Haluska, Jos. A.....Detroit
H'Amada, Norman K.....Detroit
Hamburger, A. C.....M
Hamel, John.....Detroit
Hamil, Brenton, M.....Detroit
Hamilton, Norman C.....Detroit
Hamilton, Stewart.....Detroit
Hamilton, William.....Detroit
Hamilton, William F.....Detroit
Hammer, Charles A.....Detroit
Hammer, Edwin J.....Detroit
Hammer, Howard J.....M
Hammond, A. E.....Detroit
Hammond, James L.....Inkster
Hand, Fordus V.....M
Hanna, Carl.....M
Hanna, E. Howard.....Detroit
Hanna, Samuel C.....Detroit
Hansen, Frederick E.....Detroit
Hanser, Joshua.....Detroit
Hanson, Frederick N.....M
Harelik, E. W.....Detroit
Hardstaff, R. John.....Detroit
Hardy, George C.....Detroit
Harley, Louis M.....Detroit
Harm, W. B.....Detroit
Harper, Jesse T.....M
Harrell, Voss.....Detroit
Harris, Harold H.....M
Harris, Ivor David.....Detroit
Harris, Landy E.....Detroit
Harrison, Hugh.....Detroit
Harrison, Wesley.....Detroit
Hart, Charles E.....M
Hart, J. Clarence.....M
Hartgraves, Hallie.....Detroit
Hartman, F. W.....Detroit
Hartmann, W. B.....Detroit
Hartzell, John B.....M
Hasley, Clyde K.....Detroit
Hasley, Daniel E.....Detroit
Hastings, Orville J.....Detroit
Hause, Glen E.....M
Hauser, I. Jerome.....M
Hauser, John E.....Detroit
Havers, Howard.....Detroit
Hawkins, James W.....Detroit
Hayes, Joseph D.....Detroit
Heath, Leonard P.....M
Heath, Parker.....Detroit
Heavner, L. E.....M
Hedgeman, E. Chester.....Detroit
Hedges, Frank W.....Detroit
Hedrick, Donald W.....Detroit
Heenan, T. H.....Detroit
Heideman, Louis.....M
Heldt, Thomas J.....Detroit
Hendelman, Manuel H.....Detroit
Henderson, A. B.....M
Henderson, Harold.....Detroit
Henderson, J. L.....Detroit
Henderson, Leslie T.....Detroit
Henderson, William E.....Detroit
Henderson, Wm. W.....M
Henig, Fred.....M
Henrich, L. E.....Detroit
Herkimer, Dan R.....M
Herrold, Rose E.....Detroit
Herschelmann, Roy F.....M
Hershey, Lynn N.....Detroit
Hewitt, Leland V.....Detroit
Hewitt, Robt. S.....M
Heyner, Stanley A.....Detroit
Hibbard, Ralph G.....Detroit
Hickey, Joseph.....Detroit
Higbee, Arthur L.....Detroit
Hildebrant, Hugh R.....Detroit
Hileman, Lee.....Ecorse
Hillenbrand, Alfred E.....M
Hiller, Glenn I.....Detroit
Hilton, William E.....Detroit
Hinko, Edward N.....Eloise
Hipp, William.....Detroit
Hirshfeld, John W.....Detroit
Hirschman, L. J.....Detroit
Hochman, Morton M.....Detroit
Hodges, Roy W.....Detroit
Hodgkinson, C. P.....M
Hodoski, Frank J.....Detroit
Hoenig, Andrew L.....Detroit
Hoffman, E. S.....Detroit
Hoffman, Henry A.....M
Hoffmann, Martin H.....Detroit
Holcomb, August A.....Northville
Hollander, A. J.....Detroit
Hollis, Henry B.....Detroit
Holman, Herbert H.....M
Holmes, A. W.....Detroit
Holt, Henry T.....Detroit
Holstein, A. P.....M
Honhart, Fred L.....Detroit
Honor, William H.....Wyandotte
Hooker, Donald H.....M
Hookey, J. A.....M
Hooper, Norman L.....Detroit
Hoopes, Benjamin F.....M
Hoops, George B.....Detroit
Hopkins, J. E.....Detroit
Horan, Thomas.....M
Horkins, Harold A.....Detroit
Horny, Hugo.....M
Horton, Reece H.....Detroit
Horvath, Louis O.....Detroit
Horwitz, John B.....M
Host, Lawrence N.....Detroit
Hotchkiss, Loris M.....Farmington
Howard, Austin Z.....Detroit
Howard, Philip J.....Detroit
Howell, Bert F.....Detroit
Howes, Willard Boyden.....Detroit
Howlett, Howard T.....Detroit
Hromadko, Louis.....Detroit
Hubbard, John P.....Detroit
Hudson, A. Willis.....Detroit
Hudson, J. Stewart.....Grosse Pointe
Hudson, Wm. A.....Detroit
Huegli, Wilfred A.....M
Huff, Reginald G.....Wayne
Hughes, Albertie A.....Detroit
Hughes, Ray W.....Detroit
Hull, L. W.....Detroit
Hunt, T. H.....Detroit
Hooker, Donald H.....M
Hunt, Verne G.....Detroit
Hunter, Basil H.....Detroit
Hunter, C. M.....Detroit
Hunter, Elmer N.....Detroit
Husband, Chas. W.....Detroit
Hussey, Raymond.....Detroit
Hyatt, Jarvis M.....M
Hyde, F. W.....Detroit
Iacobell, Peter H.....M
Ignatius, A. A.....Detroit
Ihle, Lyman E.....M
Igna, Eli J.....Detroit
Insley, Stanley W.....Detroit
Irvin, Earle Albert.....Detroit
Irwin, W. A.....Detroit
Israel, Barney B.....M
Israel, J. G.....Detroit
Isaacson, Arthur.....Detroit
Ivkovich, Peter.....M
Jacobson, Samuel D.....Detroit

Jacoby, Myron D.....Detroit
Jaeger, Grove A.....Detroit
Jaeger, Julius P.....Detroit
Jaekel, C. N.....Detroit
Jaffar, Donald J.....Detroit
Jaffe, J. L.....Detroit
Jaffe, Jacob.....Detroit
Jaffe, Louis.....M
Jahsman, William E.....Detroit
James, Richard G.....Detroit
Jamieson, Robert C.....Detroit
Jamieson, Thomas J.....Lincoln Park
Janicki, Natalia J.....Eloise
Jarre, Hans A.....Detroit
Jarzynka, Frank J.....Dearborn
Jaison, Lawrence J.....M
Jend, William J.....Detroit
Jenkins, E. A.....M
Jenne, Byron H.....Detroit
Jennings, Alpheus F.....Detroit
Jennings, Robert M.....M
Jentgen, Chas. J.....Detroit
Jentgen, L. G.....Detroit
Jewell, F. C.....Detroit
Jocz, M. W.....Grosse Pointe Park
Jodar, E. O.....Detroit
John, Hubert R.....Detroit
Johnson, Elizabeth.....Detroit
Johnson, H. Peyton.....Detroit
Johnson, Homer L.....Detroit
Johnson, Ralph A.....Detroit
Johnson, V. P.....Detroit
Johnson, Vincent C.....Detroit
Johnson, W. H. M.....Detroit
Johnston, Charles G.....Detroit
Johnston, Everett V.....Detroit
Johnston, J. A.....Detroit
Johnston, John L.....Detroit
Johnston, Wm. E.....Detroit
Johnstone, B. I.....Detroit
Joinville, E. V.....Detroit
Jones, Arthur J.....Detroit
Jones, Adrian R.....Detroit
Jones, Edna M.....Northville
Jones, H. C.....M
Jones, L. Faunt.....Detroit
Jones, Roy D.....Detroit
Jonikaitis, Joseph J.....Detroit
Joyce, Stanley J.....M
Judd, C. Hollister.....Detroit
Juliar, Benjamin.....M
Jurow, Harry N.....Detroit
Kallet, Herbert I.....Detroit
Kallman, David.....Detroit
Kallman, Leo.....Detroit
Kallman, R. Robert.....M
Kaminski, L. R.....Detroit
Kaminski, Zeno L.....Detroit
Kamperman, George A.....Detroit
Kanter, Herman.....M
Kapetansky, A. J.....Detroit
Kapetansky, N. J.....Detroit
Kaplita, Walter A.....M
Karr, Herbert S.....Detroit
Kasaback, V. Y.....Detroit
Kasper, Joseph A.....Detroit
Kass, Arnold.....Detroit
Kass, J. B.....Detroit
Kates, Simon C.....Detroit
Katzman, I. S.....Detroit
Kauffman, Wm.....M
Kaump, Donald H.....Detroit
Kauppinen, J. A.....Detroit
Kay, Edward W.....Hamtramck
Kay, Harry H.....M
Kazdan, Louis.....M
Kazdan, Morris A.....M
Keane, Wm. E.....Detroit
Kearns, Hubert J.....Detroit
Keating, Thomas F.....Detroit
Keene, Clifford H.....M
Kehoe, Henry J.....East Detroit
Kelly, Edward W.....Detroit
Kemler, W. J.....Ecorse
Kennary, James M.....Detroit
Kennedy, Chas. S.....Detroit
Kennedy, L. F.....Detroit
Kennedy, Robert B.....Detroit
Kennedy, Wm. Y.....Detroit
Kern, W. H.....Garden City
Kernkamp, Ralph.....Detroit
Kernick, Melvin O.....M
Kersten, Armand G.....Detroit
Kersten, Werner.....Detroit
Kerzman, Joseph H.....Detroit
Keshishian, Sarkis K.....Detroit
Keyes, Eugene Charles.....Dearborn
Keyes, John W.....M
Kibzey, Ambrose T.....Detroit
Kidner, Frederick C.....Detroit
Kimball, David C.....M
Kimberlin, Kenneth K.....M
King, Edward D.....Detroit
King, Melbourne J.....M
Kingswood, Roy C.....Detroit
Kirchner, Augustus.....Detroit
Kirker, J. G.....Detroit
Klebba, Paul.....Detroit
Klein, Wm.....Detroit
Kliger, David.....Detroit
Kline, Lewis LeRoy.....Detroit
Kline, Starr L.....Detroit
Klosowski, Joseph.....Detroit
Klote, M. D.....Detroit
Knaggs, Charles W.....Grosse Pointe
Knaggs, Earl J.....M
Knapp, Byron S.....M
Knapp, Floyd.....Detroit
Knobloch, Edmund J.....Detroit
Knoch, Hubert S.....M
Knox, Ross M.....Ecorse
Koebel, R. H.....Detroit
Koerber, Edward J.....Detroit
Koessler, George L.....Detroit
Kohn, A. Max.....M
Kohn, M. E.....Detroit
Kokowicz, Raymond J.....M
Kolasa, W. B.....Detroit
Kopel, Joseph O.....Detroit
Korby, George J.....Detroit
Kosanovic, Frederick.....M
Koss, Frank R.....M
Kossayda, Adam W.....M
Koster, Koert.....Detroit
Kovan, Dennis D.....M
Koven, Abraham.....Detroit
Kozlinski, Anthony E.....M
Kraft, Raymond B.....Detroit
Kraft, Ruth M.....Detroit
Krass, Edward W.....M
Kraus, John J.....Detroit
Krebs, William T.....Detroit
Kreinbring, George E.....Detroit
Kretzschmar, Clarence A.....Detroit
Krieg, Earl G.....Detroit
Krieger, Harley L.....Detroit
Kritchman, M. J.....Detroit
Kroha, Lawrence.....Detroit
Krohn, Albert H.....Detroit
Krynicki, Francis X.....Detroit
Kubanek, Joseph L.....Eloise
Kucmierz, Francis S.....M
Kuhn, Albert Arthur.....M
Kuhn, Richard F.....M
Kulaski, Chester H.....Detroit
Kullman, Harold J.....M
Kurcz, J. A.....M
Kurtz, I. J.....Detroit
Kwasiborski, S. A.....Wyandotte
Laberge, James M.....M
LaBine, Alfred C.....Detroit
LaCore, Ivan.....M
LaFerte, Alfred D.....Detroit
Lakoff, Charles.....Detroit
Lam, Conrad R.....Detroit
Lamberson, Frank A.....Detroit
LaMarche, N. O.....Detroit
Lammy, James V.....Detroit
Lampman, H. H.....Detroit
Landers, M. B.....Detroit
Landers, M. B., Jr.....Dearborn
Lang, Leonard W.....Detroit
Lange, Anthony H.....Detroit
Lange, Wm. A.....M
Laning, George M.....Detroit
Lansky, Mandell.....M
Lapham, Fred E.....M
LaRocco, Anthony J.....Detroit
Lasley, James Wm.....Detroit
Lassaline, S. J.....Detroit
Lathrop, Philip L.....Detroit
Laub, Stanley V.....M
Lauppe, Edward H.....Detroit
Lauppe, F. A.....M
Law, John H.....Detroit
Lawrence, Wm. C.....Detroit
Lazar, Morton R.....M
Leach, David.....M
Leacock, Robert C.....Detroit
Leader, L. R.....Detroit
Leaver, L. Ross.....Detroit
Leckie, George C.....Detroit
Ledwidge, Patrick L.....Detroit
Lee, Harry E.....Detroit
LeGallee, George M.....M
Lehman, William L.....M
Leibinger, H. R.....Detroit
Leipsitz, Louis S.....M
Leiser, Rudolf.....Eloise
Leithauser, D. J.....Detroit
Leland, Sol.....M
Lemley, Clark.....Detroit
Lemmon, Charles E.....M
Lemmon, Clarence W.....River Rouge
Lentine, James J.....M
Lenz, Willard R.....Grosse Pointe
Lepard, C. W.....Detroit
Lepley, Fred O.....Detroit
Lerman, S. E.....Centerline
Lescohier, Alex W.....Grosse Pointe
L'Esperance, Simon P.....Detroit
Leszynski, J. S.....Detroit
Leucutia, Traian.....Detroit
Levant, Arthur B.....M
Levin, David M.....M
Levin, Michael M.....M
Levin, Samuel J.....Detroit
Levine, Sidney S.....M
Levitt, Edward.....Detroit
Levitt, Nathan.....Detroit
Levy, Marvin B.....Detroit
Lewis, Charles T.....Detroit
Lewis, L. A.....Detroit
Lewis, J. Hugh.....M
Lewis, Wilfred John.....M
Libbrecht, Robert V.....Dearborn
Lichter, M. L.....M
Lichtwardt, Hartman A.....Detroit
Lieberman, B. L.....Detroit
Liddicoat, A. G.....Detroit
Lightbody, James J.....Detroit
Lignell, Rudolph.....Detroit
Lilly, Charles J.....Detroit
Lilly, Vernon S.....Detroit
Linton, James R.....Eloise
Lipinski, Stanley L.....Detroit
Lipkin, Ezra.....Detroit
Lippold, Paul H.....Detroit
Lipschutz, Louis S.....M
Littlejohn, David.....Dearborn
Livingston, George D.....M
Livingston, Geo. M.....(R)..Detroit
Lockwood, Bruce C.....Detroit
Lofstrom, James E.....M
Long, Earle C.....Detroit
Long, John J.....Detroit
Loranger, C. B.....Grosse Pointe
Loranger, Guy L.....M
Lorber, Joseph H.....M
Lorentzen, Edwin H.....Detroit
Lovas, W. S.....M
Love, W. Thomas.....Detroit
Lovell, B. K.....M
Lovering, Wm. J.....Detroit
Lowrie, G. B.....Detroit
Lowrie, Wm. L.....Detroit
Lowry, George L.....Detroit
Luce, Henry A.....Detroit
Lum, Thomas Kion.....M
Lutz, Earl F.....Detroit
Lynn, David H.....Detroit
Lynn, Harvey D.....Detroit
Lyons, William Harrington.....Detroit
Mabee, Frank P.....Detroit
Mabley, J. Donald.....M
MacArthur, Robert A.....Detroit
MacCracken, Frances L.....Detroit
MacDonald, James.....Detroit
MacDougall, Orrin P.....Detroit
MacFarlane, Howard W.....Detroit
MacGregor, W. W.....Detroit
Mack, Harold C.....M
MacKenzie, Earle D.....Detroit
MacKenzie, Frank M.....Detroit
Mackenzie, John W.....Grosse Pointe
Mackersie, W. G.....Detroit
MacMillan, Francis B.....Detroit
MacMillan, James M.....M
MacMullen, Frank B.....Detroit
MacQueen, Malcolm D.....Detroit
MacPherson, K. C.....Detroit
Maczewski, John E.....Detroit
Madsen, Martha.....Detroit
Magnell, Ralph C.....Detroit
Maguire, Clarence E.....Detroit
Mahlatjie, Nathaniel M.....Detroit
Mahoney, Hugh M.....Detroit
Maibauer, F. P.....M
Maior, Roman H.....Hamtramck
Maire, E. D.....M
Mair, Harold U.....M
Malachowski, B. T.....Detroit
Malik, Edward A.....Detroit
Malik, Nur M.....Detroit
Malina, Stephen.....Detroit
Malone, Herbert.....Detroit
Maloney, John A.....Detroit
Mancuso, Vincent S.....Detroit
Mandiberg, Jack N.....M
Manning, Morey H.....Detroit
Maples, Douglas E.....M
Marcotte, Oliver.....Detroit
Marcus, Daniel B.....Detroit
Marinus, Carleton J.....Detroit
Marion, Donald F.....M
Mark, Jerome.....M

Markoe, Rupert C. L.....Detroit
Marks, Ben.....M
Marks, Morris.....Detroit
Marsden, Thomas B.....Detroit
Marsh, Alton R.....Detroit
Marshall, James R.....Detroit
Martin, Edward G.....Detroit
Martin, Elbert A.....Detroit
Martin, I. Herbert.....Detroit
Martin, J. B., Jr.....Detroit
Martin, L. R.....Detroit
Martin, R. M.....Detroit
Martinez, P. O.....Detroit
Martmer, Edgar.....M
Marwil, T. B.....M
Mason, Percy W.....Detroit
Massengile, Cleave.....Detroit
Mateer, John G.....Detroit
Mathes, Charles J.....Saginaw
Maun, Mark E.....Detroit
Maxwell, J. Harvey.....Detroit
May, Earl W.....Detroit
May, Frederick T., Jr.....M
Mayer, Willard D.....Detroit
Mayne, C. H.....Detroit
McAfee, F. W.....Detroit
McAlonan, Wm. T.....Detroit
McAlpine, A. D.....Detroit
McAlpine, Gordon S.....Detroit
McBroom, Russell E.....Detroit
McClellan, G. L.....Detroit
McClellan, Robert J.....Detroit
McClendon, James J.....Detroit
McClintock, J. J.....Detroit
McClure, Robert W.....M
McClure, Roy D.....Detroit
McClure, Wm. R.....Detroit
McColl, Charles W.....M
McColl, Clarke M.....Detroit
McColl, Kenneth M.....Detroit
McCollum, E. B.....M
McCord, Carey P.....Detroit
McCormick, Colin C.....Dearborn
McCormick, C. W.....Detroit
McCormick, F. T.....Detroit
McCullough, Lester E.....Detroit
McDonald, Angus L.....Detroit
McDonald, George O.....Detroit
McDonald, Grant.....Detroit
McDonald, Peter W.....Wyandotte
McEvitt, Wm. G.....Detroit
McGarvah, A. W.....Detroit
McGarvah, Jos. A.....Detroit
McGee, Charles Joseph.....Eloise
McGillicuddy, Walter E.....Detroit
McGinnis, Daniel H.....Detroit
McGlaughlin, Nicholas D.....M
McGough, Joseph M.....M
McGraw, Arthur B.....M
McGuire, M. Ruth.....Detroit
McIntosh, W. V.....Detroit
McKean, G. Thomas.....M
McKean, Richard M.....M
McKenna, Charles J.....M
McKhann, Charles F.....Detroit
McKinnon, John D.....Detroit
McLane, Harriet E.....Detroit
McLean, Don W.....M
McLean, Harold G.....Detroit
McMahon, Gerald H.....Detroit
McMehen, Chas. E.....Berkeley
McPherson, E. Glenn.....Dearborn
McPherson, R. J.....Detroit
McQuiggan, Mark R.....Detroit
McQuiggan, Paul.....M
McRae, Donald H.....Detroit
Mead, John.....Detroit
Meader, F. M.....Kalamazoo
Meek, Stuart F.....New Baltimore
Meinecke, Helmuth A.....Detroit
Mellen, Hyman S.....Detroit
Menagh, Frank R.....Detroit
Mendelssohn, R. J.....Detroit
Merkel, Charles C.....Grosse Pointe
Merrill, Wm. O.....Detroit
Merriman, K .S.....Detroit
Merritt, Earl G.....Detroit
Metzger, Harry C.....Detroit
Meyer, Ruben.....Detroit
Meyers, M. P.....M
Meyers, Solomon G.....M
Miley, H. H.....Detroit
Miller, Daniel H.....Detroit
Miller, Harry A.....M
Miller, Hazen L.....Detroit
Miller, Karl.....M
Miller, Maurice P.....Trenton
Miller, Myron H.....Detroit
Miller, T. H.....M
Miller, Wm. Ernest.....Detroit
Mills, Clinton C.....M
Mills, Georgia V.....Detroit
Milton, Boynton A.....Inkster
Mintz, Edward I.....Detroit
Miral, Solomon P.....Detroit
Mishelevich, Sophie.....Detroit
Mitchell, C. Leslie.....Detroit
Mitchell, Gertrude F.....Detroit
Mitchell, Ralston S.....Detroit
Mitchell, W. Bede.....M
Moehlig, Robert C.....Detroit
Moisides, V. P.....Detroit
Moll, Clarence D.....Detroit
Molner, Joseph G.....M
Moloney, J. Clark.....M
Mond, Edward.....Detroit
Monfort, Willard.....Detroit
Montgomery, John C.....Detroit
Montante, Jos. R.....M
Moore, Doris Sanders.....Detroit
Moore, James A.....Detroit
Moore, Milridge B.....Detroit
Morand, Louis J.....Detroit
Morgan, Donald Nye.....M
Moriarity, George.....Detroit
Moritz, H. C.....Detroit
Morley, Harold V.....M
Morley, James A.....Detroit
Moroun, S. J.....Detroit
Morris, Harold L.....Detroit
Morrison, Marjorie G. E.....Detroit
Morse, Ellen.....Detroit
Morse, Plinn F.....Detroit
Morton, David G.....M
Morton, John B.....Detroit
Mosee, W. Jones.....Detroit
Mosen, Max M.....Detroit
Moss, E. B.....Detroit
Moss, Nathan H.....Detroit
Mott, Carlin P.....Detroit
Moyer, Carl A.....Eloise
Muellenhagen, Walter J.....Detroit
Munson, F. T.....Detroit
Muntvan, Andrew.....Detroit
Murphy, D. J.....M
Murphy, Frank J.....M
Murphy, John M.....M
Murphy, Scipio G.....Detroit
Murphy, W. M.....Detroit
Murray, George M.....Detroit
Murray, William A.....Detroit
Muske, Paul H.....M
Myers, George P.....Detroit
Nagel, Oscar.....M
Nagle, John W.....Wyandotte
Naud, Henry I.....Detroit
Nawotka, E. E.....Detroit
Naylor, A. E.....Detroit
Naylor, Arthur H.....Detroit
Neeb, Walter G.....M
Nelson, Harry M.....Detroit
Nelson, Victor E.....M
Neumann, Arthur J.....Detroit
Newbarr, Arthur A.....Detroit
Newman, Max Karl.....Detroit
Nielson, Aage E.....M
Nichamin, Samuel J.....M
Nickels, Albert W.....M
Nickerson, Ivey Dean.....M
Nigro, Norman D.....M
Nill, John B.....Detroit
Nill, William F.....Detroit
Nixdorf, Wallace B.....Detroit
Noer, Rudolf J.....M
Nolan, Bernard E.....Detroit
Nolting, Wilfred S.....M
Norconk, A. A.....M
Norris, Edgar H.....Detroit
Northrop, Arthur K.....Detroit
Norton, A. B.....Detroit
Norton, Charles S.....Detroit
Noth, Paul H.....Grosse Pointe Farms
Novy, R. L.....Detroit
Nowicki, Joseph A.....Detroit
O'Brien, E. J.....Detroit
O'Brien, G. M.....Detroit
O'Donnell, Charles.....Dearborn
O'Donnell, David H.....(E)..Detroit
O'Donnell, Dayton H.....M
Ohmart, Galen B.....Detroit
O'Hora, James T.....Detroit
Ohrt, Harold F.....Detroit
Olenikoff, Alex.....M
Olechowski, Leo W.....M
Olmsted, William R.....Detroit
Olney, H. E.....Detroit
Oman, Cyrus F.....Detroit
Oppenheim, J. M.....M
Oppenheim, Milton M...Highland Park
Organ, Fred W.....Detroit
Ormond, John K.....Detroit
Orecklin, L.....Detroit
Ornstein, Charles.....Detroit
O'Rourke, Paul V.....Detroit
O'Rourke, R. M.....Detroit
Osius, Eugene A.....M
Ott, Harold A.....M
Ottaway, John P.....M
Owen, Clarence I.....M
Palmer, Alice.....Detroit
Palmer, Hayden.....Detroit
Palmer, R. Johnston.....Detroit
Pangburn, L. E.....Detroit
Panic, Stephen M.....Detroit
Panzner, Edward J.....Detroit
Parker, Benjamin R.....M
Parker, Walter R.....(E)..Detroit
Parr, R. W.....Detroit
Parsons, John P....Grosse Pointe Park
Pasternacki, Norbert T.....Detroit
Paterson, Walter G.....Detroit
Patton, Henry S.....M
Pawlowski, Jerome.....Detroit
Paysner, Harry A.....Detroit
Peabody, Chas. Wm.....M
Peacock, Lee W.....Detroit
Pearman, Charles L. R.....Detroit
Pearse, Harry A.....Detroit
Peggs, George F.....M
Peirce, Howard W.....Detroit
Penberthy, G. C.....M
Pendy, John M.....M
Pensler, Meyer.....M
Pequegnot, Chas. F.....Detroit
Perdue, Grace M.....Detroit
Perkin, Frank S.....M
Perkins, Ralph A.....Detroit
Perlis, H. L.....Detroit
Perry, Alvin LaForge.....M
Peterman, Earl A.....Detroit
Petix, Samuel C.....Detroit
Pevin, Pauline.....Detroit
Pfeiffer, Rudolph L.....Detroit
Pickard, Orlando W.....Detroit
Pierce, Frank L.....Detroit
Pierson, Max J.....Detroit
Pietraszewski, A. W.....Detroit
Pinckard, Karl G.....Dearborn
Pink, Rose M.....Detroit
Pinney, Lyman J.....Detroit
Pino, Ralph H.....Detroit
Piper, Clark C.....Detroit
Piper, Ralph R.....Detroit
Pittman, J. E.....Detroit
Plaggemeyer, H. W.....Detroit
Pliskow, Harold.....M
Podezwa, J. W.....M
Pollock, John J.....Detroit
Pool, Walter D.....Detroit
Poole, Marsh W.....M
Poos, Edgar E.....Detroit
Porretta, Anthony C.....Detroit
Porretta, F. S.....Detroit
Porter, Howard J.....Romulus
Portnoy, Harry.....Detroit
Posner, Irving.....Detroit
Potts, E. A.....Detroit
Pratt, Jean P.....Detroit
Pratt, Lawrence.....M
Prendergast, John J.....Detroit
Priborsky, Benj. H.....Detroit
Price, A. H.....Detroit
Price, Alvin Edwin.....M
Proctor, Bruce....Grosse Pointe Farms
Proud, Robert H.....Flat Rock
Ptolemy, H. H.....Detroit
Pugliesi, Benedetto.....Detroit
Purcell, Frank H.....Detroit
Putra, A. M.....M
Quigley, William.....Detroit
Rabinovitch, Bella.....Detroit
Rahm, Lambert P.....M
Raiford, Frank P.....Detroit
Rand, Morris.....Detroit
Rao, John O.....Detroit
Raskin, John.....Detroit
Raskin, Morris.....Detroit
Rastello, Peter B.....Detroit
Ratigan, C. S.....Dearborn
Raynor, Harold F.....Detroit
Reberdy, George J.....Detroit
Reed, H. Walter.....Detroit
Reed, Ivor E.....Detroit
Rees, Howard C.....Detroit
Reid, Wesley G.....M
Reiff, Morris V.....M
Reinbolt, Chas. A.....Detroit
Reinsh, Ernest R.....M
Reisman, Nathan J.....Detroit
Rekshaw, W. R.....M
Renaud, G. L.....(E)..Detroit
Rennell, Leo P.....Detroit
Renz, Russell H.....Detroit
Reske, Alven.....M
Reveno, William S.....Detroit

Rexford, W. K.....Detroit
Reye, H. A.....Detroit
Reyner, C. E.....Detroit
Reynolds, Lawrence.....Detroit
Reynolds, R. P.....Detroit
Rezanka, Harold J.....Grosse Pointe
Rhoades, F. P.....Detroit
Rice, Clair M., Jr.....M
Rice, Harold B.....Detroit
Rice, Meshel.....Oxford
Richards, R. Milton.....Detroit
Richardson, Allan L.....Detroit
Richardson, Robert P.....Wayne
Rick, Paul J.....Detroit
Ridge, Ralph W.....Wyandotte
Rieckhoff, George G.....Detroit
Rieger, John B.....Detroit
Rieger, Mary H.....Detroit
Riseborough, E. C.....Detroit
Rizzo, Frank .....Detroit
Robb, Edw. L.....Detroit
Robb, Herbert F.....Belleville
Robb, J. M.....Detroit
Robbins, Edward R.....Detroit
Roberts, Arthur J.....Ecorse
Robins, Samuel C.....Detroit
Robinson, Edwin L.....Detroit
Robinson, Fred L.....Dearborn
Robinson, George W.....Detroit
Robinson, Harold A.....M
Robinson, R. G.....Detroit
Rogers, A. Z.....Grosse Pte. Woods
Rogers, James D.....Wyandotte
Rogin, James R.....Detroit
Rogoff, A. S.....M
Rohde, Paul C.....Detroit
Roland, Charles F.....Detroit
Roman, Stanley J.....M
Roney, Eugene H.....M
Root, Charles T.....M
Rosbolt, Oscar P.....Detroit
Rose, Bernard.....Detroit
Rosefield, John L.....Detroit
Rosen, Robert.....Detroit
Rosenberger, Homer.....M
Rosenthal, Louis H.....M
Rosenzweig, Saul.....Detroit
Ross, D. G.....Grosse Pointe
Ross, Ben C.....M
Ross, Hyman.....M
Ross, Samuel H.....M
Roth, Edward T.....Detroit
Roth, Theodore I.....M
Rotarius, E. M.....Detroit
Rothbart, H. B.....Detroit
Rothman, Emil D.....Detroit
Rottenberg, Leon.....M
Rowell, Robert C.....M
Rowell, Wilfred J.....M
Rubright, LeRoy W.....M
Rucker, Julian J.....Detroit
Rueger, Milton J.....M
Rueger, Ralph C.....Detroit
Runge, Edward F.....Detroit
Rupprecht, Emil F.....M
Ruskin, Samuel.....Detroit
Ruskin, I. W.....Detroit
Russell, John C.....Detroit
Ryan, Charles F.....Detroit
Ryan, W. D.....Detroit
Rydzewski, Jos. B.....Detroit
Ryerson, Frank L.....Detroit
Sachs, Herman K.....M
Sack, A. G.....M
Sadi, Lutfi.....Grosse Pointe
Sadowski, Roman.....Detroit
Sage, Edward O.....Detroit
Sage, Thomas.....Detroit
Sager, E. L.....Detroit
St. Amour, Hector.....Detroit
St. Louis, R. J.....River Rouge
Sakorraphos, Stelios N.....Detroit
Salchow, Paul T.....Detroit
Salowich, John N.....Allen Park
Saltzstein, Harry C.....Detroit
Sander, I. W.....Detroit
Sanders, Alex W.....Detroit
Sanderson, Alvord.....Grosse Pte. Pk.
Sanderson, James H.....(E)..Detroit
Sanderson, Suzanne.....Detroit
Sandler, Nathaniel.....M
Sands, G. E.....Detroit
Sandweiss, D. J.....Detroit
Sanford, Hawley S.....M
Sargent, William R.....Detroit
Sauk, John J.....M
Sauter, Simon H.....Detroit
Savignac, Eugene M.....M
Sawyer, Harold F.....Detroit
Scarney, Herman D.....M
Schaefer, Robert L.....M
Schaeffer, Martin.....Detroit
Schembeck, I. S.....Detroit
Schenden, A. J.....Melvindale
Schiller, A. E.....Detroit
Schilling, Charles E.....Detroit
Schillinger, Harold K.....Dearborn
Schinagel, Geza.....Detroit
Schirack, Ray.....Detroit
Schlacht, George F.....Romulus
Schlafer, Nathan H.....Detroit
Schlemer, John H.....Detroit
Schmidt, Harry E.....M
Schmidt, J. Robert.....M
Schmidt, Milton R.....M
Schmier, Burton L.....Detroit
Schmitt, Norman L.....Detroit
Schneck, R. J.....Detroit
Schneider, Curt P.....M
Schoenfield, Gilbert D.....Detroit
Schorr, Robert L.....(E)..Detroit
Schooten, Sarah S.....Detroit
Schreiber, Frederick.....Detroit
Schroeder, Carlisle F.....M
Schulte, Carl H.....Detroit
Schultz, Ernest C.....Detroit
Schultz, Robert F.....M
Schwartz, Ben.....Detroit
Schwartz, H. Allen.....Detroit
Schwartz, Louis A.....M
Schwartz, Marvin.....Detroit
Schwartz, Oscar D.....M
Schwartzberg, Jos. A.....M
Schweigert, C. F.....M
Sciarrino, Stanley V.....Detroit
Scott, R. J.....M
Scott, William J.....Grosse Pte. Farms
Scruton, Foster D.....Detroit
Seabury, Frank P.....Detroit
Secord, Eugene W.....Detroit
Seeley, James B.....Dearborn
Seeley, Ward F.....Detroit
Segar, Lawrence F.....Detroit
Seibert, Alvin H.....Grosse Pte. Park
Seiferlein, Archie L.....M
Selby, C. D.....Detroit
Sellers, Charles W.....Detroit
Sellers, Graham.....Detroit
Selling, Lowell.....Detroit
Selman, J. H.....Detroit
Sewell, George.....Detroit
Seymour, William J.....Detroit
Shafarman, Eugene.....Detroit
Shaffer, Jos. H.....M
Shaffer, Loren W.....Detroit
Shafter, Royce R.....Detroit
Shanoski, Stanley J.....Detroit
Shapiro, Oscar U.....Detroit
Shapiro, Reuben I.....M
Sharp, Martin C.....Detroit
Sharrer, Chas. H.....Detroit
Shaw, Robert G.....Detroit
Shawan, Harold K.....Detroit
Shebasta, Emil.....M
Sheldon, John A.....Detroit
Shelton, C. F.....M
Sheppard, Emma L. W.....Detroit
Sheppard, William B.....M
Sherman, B. B.....Detroit
Sherman, Louis L.....Detroit
Sherman, Wm. L.....Detroit
Sherrin, Edgar R.....M
Sherwood, DeWitt L.....Detroit
Shewchuk, Alexander P.....M
Shields, Wm. L.....Detroit
Shifrin, Peter G.....M
Shipton, W. Harvey.....Detroit
Shalain, Benjamin.....Detroit
Shore, O. J.....Detroit
Shorney, Brain T.....Detroit
Shotwell, Carlos W.....Detroit
Shulak, Irving B.....M
Shurly, Burt R.....Detroit
Sickels, Ed. W.....M
Siddall, Roger S.....Detroit
Sieber, Edward H.....Dearborn
Siefert, John L.....M
Siefert, Wm. A.....Detroit
Siegel, Henry.....M
Silvarman, I. Z.....Detroit
Silver, Israel W.....Detroit
Silverman, M. M.....Detroit
Simon, Emil R.....Detroit
Simons, Edward J.....M
Simpson, C. E.....Detroit
Simpson, H. Lee.....Detroit
Singer, Floyd W.....Detroit
Sippola, Geo. W.....Detroit
Sisson, John M.....Detroit
Siwka, Isadore J.....Detroit
Skinner, Edward F.....Detroit
Skinner, W. Clare.....Detroit
Skolnick, Max H.....M
Skrzycki, Stephen S.....Detroit
Skully, E. J.....Detroit
Sladen, Frank J.....Detroit
Slate, Raymond N.....Detroit
Slaughter, Fred M.....Detroit
Slaugenhaupt, J. G.....Detroit
Slazinski, Leo W.....Detroit
Slipson, Edith.....Detroit
Slevin, John G.....Detroit
Sliwin, Edward P.....M
Small, Henry.....M
Smeck, Arthur R.....Detroit
Smeltzer, Merrill.....M
Smith, Charles E.....Detroit
Smith, Clarence V.....Detroit
Smith, Claude A.....River Rouge
Smith, Clement A.....Detroit
Smith, F. Janney.....Detroit
Smith, Fred R.....M
Smith, Gerrit Calvin.....Detroit
Smith, Henry L.....Detroit
Smith, J. Allen.....M
Smith, James A.....Detroit
Smith, J. Campbell..Lake Worth, Fla.
Smith, Vine LaRue.....Detroit
Smyth, Charley J.....Eloise
Snedeker, Bernard C.....M
Snow, L. W.....Northville
Snyder, Arthur M.....Detroit
Sobin, D. J.....Detroit
Socall, Charles J.....M
Sokolov, Raymond A.....M
Somers, Donald C.....M
Sonda, Lewis P.....Detroit
Sorock, Milton L.....M
Spademan, Loren C.....Detroit
Spalding, Edward D.....M
Sparling, Harold I.....M
Sparling, Irene L.....Northville
Speck, Carlos C.....Allen Park
Spector, Maurice J.....M
Spero, Gerald D.....Detroit
Sperry, Frederick L.....Detroit
Sprio, Adolph.....M
Springborn, B. R.....Detroit
Sprunk, Carl.....M
Sprunk, John P.....Detroit
Spurrier, Ethelbert.....M
Squires, W. H.....Eloise
Stafford, Claude M.....Detroit
Stafford, Frank W. J.....Detroit
Stageman, John Condon.....M
Stalker, Hugh.....Grosse Pointe
Stamell, Meyer.....M
Stamos, Harry F.....Detroit
Stanton, James M.....Detroit
Stanton, Myron.....Detroit
Stapleton, Wm. J., Jr.....Detroit
Starrs, Thomas C.....Detroit
Steele, Hugh.....Detroit
Stefani, E. L.....Detroit
Stefani, Raymond T.....M
Steffes, Everett M.....M
Stein, Albert H.....M
Stein, Emory.....Detroit
Stein, James R.....Ferndale
Stein, Saul C.....M
Steinbach, Henry B.....Detroit
Steinberger, Eugene.....Detroit
Steiner, Gabriel.....Detroit
Steiner, Louis J.....Detroit
Steiner, Max.....M
Steinhardt, Milton J.....M
Stellhorn, Chester E.....Detroit
Stellhorn, Mary Christine.....Detroit
Sterling, Lawrence.....Detroit
Sterling, Robert R.....Detroit
Stern, Edward A.....Detroit
Stern, Harry L.....Detroit
Stern, Leonard H.....Detroit
Stern, Louis D.....Detroit
Stevens, Rollin H.....(E)..Detroit
Stewart, Thomas O.....Detroit
Stiefel, Daniel M.....Detroit
Stirling, Alex M.....Detroit
Stith, Dwight E.....Detroit
Stobbe, Godfrey D.....M
Stockwell, B. W.....M
Stofer, Bert E.....Detroit
Stokfisz, T.....M
Stolz, Harold F.....Detroit
Stout, Lindley H.....Detroit
Straith, Claire L.....Detroit
Stricker, Henry D.....Detroit
Strickroot, Fred L.....M
Strohschein, Don F.....Detroit
Stubbs, C. T.....Detroit
Stubbs, Harold W.....Detroit
Stuecheli, Milton B.....Detroit
Sugar, David I.....Detroit
Sugarman, Marcus H.....M
Sullivan, Hugh A.....Detroit

Summers, Wm. S.....Detroit
Surbis, John P.....Detroit
Sutherland, J. M.....Detroit
Swanson, Carl W.....Detroit
Swanson, Cleary N.....Detroit
Swift, Karl L.....Detroit
Switzer, Bertrand C.....Detroit
Syphax, Charles S., Jr.....Detroit
Szappanyos, Bela T.....Detroit
Szedja, J. C.....M
Szlachetka, Vincent E.....M
Szmigiel, A. J.....Detroit
Tamblyn, E. J.....Detroit
Tann, H. E.....Detroit
Tapert, Julius C.....Detroit
Tasker, Helen.....Detroit
Tassie, Ralph N.....Detroit
Tatelis, Gabriel.....Detroit
Taylor, Ivan B.....M
Taylor, Nelson M.....M
Taylor, Reu Spencer.....Detroit
Tear, Malcolm J.....M
Teitelbaum, Myer.....M
Tenaglia, Thomas A.....M
Tenerowicz, Rudolph G.....Detroit
Test, Frederick C., II.....Detroit
Texter, Elmer C.....Detroit
Thompson, Alderman.....Detroit
Thompson, David L.....Detroit
Thompson, H. E.....Detroit
Thompson, H. O.....M
Thompson, James B.....Detroit
Thompson, W. A.....Detroit
Thomson, Alexander.....Detroit
Thosteson, George C.....Detroit
Thurston, Roger G.....M
Tichenor, E. D.....Detroit
Toepel, Otto T.....(E)..Detroit
Tomsu, Charles L.....Detroit
Top, E. H.....Detroit
Torrey, H. N.....Detroit
Townsend, Frank M.....Detroit
Townsend, Kyle E.....Detroit
Trask, Harry D.....Detroit
Tregenza, W. Kenneth.....Detroit
Trinity, Granville J.....Detroit
Troester, George A.....M
Trombino, James F.....Detroit
Trombley, Bryan.....Detroit
Trombley, Joseph J., Jr.....M
Troxell, Emmett C.....Detroit
Truszkowski, E. G.....M
Trythall, S. W.....Detroit
Tufford, Norman G.....Detroit
Tulloch, John.....M
Tupper, Roy D.....Detroit
Turbett, Claude W.....Detroit
Turcotte, Vincent J.....Detroit
Turkel, Henry.....Detroit
Tuttle, Wm. M.....M
Tyson, Wm. E. E.....Detroit
Ujda, Chester J.....Wayne
Ulbrich, Henry L.....Detroit
Ulch, Harold W.....Detroit
Ulrich, Willis H.....M
Umphrey, Clarence E.....Detroit
Usher, William Kay.....Detroit
Vale, C. Fremont.....Detroit
Van Auken, Edward A.....M
VanBaalen, M. R.....Detroit
Van de Velde, Honore.....Detroit
Van Gundy, Clyde R.....Detroit
Van Heldorf, Harry.....Detroit
Van Nest, A. E.....Detroit
Van Rhee, George.....Detroit
Van Riper, Steven L.....Detroit
Vardon, Colin C.....Detroit
Vardon, Edward M.....Detroit
Vasu, V. O.....Detroit
Vergosen, Harry E.....M
Vincent, James L.....Wayne
Virgilio, Frank D.....Detroit
Vogelein, Adolph E.....Detroit
Voelkner, Geo. H.....Detroit
Vogel, Hymen A.....Detroit
Vokes, Milton D.....Detroit
Von der Heide, E. C.....Detroit
Vossler, A. E.....Detroit
Vreeland, C. Emerson.....Detroit
Waddington, Joseph E. G..(E)..Detroit
Wadsworth, George H.....M
Waggoner, C. Stanley.....Detroit
Waggoner, Lyle G.....Detroit
Wainger, M. J.....Detroit
Wainstock, Michael.....Detroit
Waldbott, Geo. L.....Detroit
Walker, Enos G.....M
Walker, J. Paul.....Detroit
Walker, Leo Whitney.....Detroit
Walker, Roger V.....Detroit
Walker, Sheldon A.....Detroit
Wallace, S. Willard.....Detroit
Walls, Arch.....Detroit
Walser, Howard C.....Detroit
Walsh, Charles R.....Detroit
Walsh, Francis P.....Detroit
Walters, Albert G.....Detroit
Waltz, Frank D. B.....Detroit
Waltz, Paul J.....Detroit
Ward, W. K.....Detroit
Warden, Horace F. W.....Detroit
Warner, P. L.....Detroit
Warner, Harold W.....M
Warren, Wadsworth.....M
Wasserman, Lewis C.....Detroit
Waszak, Chas. J.....Detroit
Watson, Douglas J.....M
Watson, Harwood G.....Dearborn
Watson, J. Edwin.....Detroit
Watson, Robert W.....Highland Park
Watts, Frederick B.....M
Watts, John J.....Detroit
Wayne, M. A.....Detroit
Weaver, Clarence E.....Detroit
Weaver, Delmar F.....Detroit
Webster, John E.....M
Weed, Milton R.....M
Wehenkel, Albert M.....Detroit
Weiner, M. B.....Detroit
Weingarden, David H.....Detroit
Weinstein, Jacob.....Detroit
Weisberg, A. Allen.....Detroit
Weisberg, Harry.....Detroit
Weisberg, Jacob.....M
Weisenthal, Irvin.....Detroit
Weiser, Frank A.....Detroit
Weiss, J. G.....M
Welch, John H.....Detroit
Weller, Chas. N.....Detroit
Wells, Martha.....Detroit
Weltman, Carl G.....Detroit
Wendel, Jacob S.....Detroit
Wenzel, Jacob F.....Detroit
West, Howard Gaige.....Detroit
Weston, Bernard.....Detroit
Weston, Earl E.....Detroit
Weston, Horace L.....M
Westover, Charles.....Plymouth
Weyher, Russell F.....Detroit
Whalen, Neil J.....Detroit
Wharton, Thomas V.....Wyandotte
Whinnery, Randall A.....Detroit
White, Milo R.....Detroit
White, Milton W.....Detroit
White, Prosper D., Jr.....M
White, Theodore M.....Detroit
Whitehead, L. S.....M
Whitehead, Walter K.....Detroit
Whiteley, Robert K.....M
Whitney, Elmer L.....Detroit
Whitney, Rex E.....M
Whittaker, Alfred H.....Detroit
Wiant, R. E.....Detroit
Wickham, A. B.....Detroit
Wiechowski, Henry E.....M
Wiener, I.....M
Wight, Fred B.....Detroit
Wilcox, Leslie F.....M
Wilkinson, Arthur P.....Detroit
Williams, C. J.....Detroit
Williams, Mildred C.....Detroit
Williamson, Edwin M.....M
Williamson, John G.....Dearborn
Wills, J. N.....Detroit
Willson, Wesley W.....M
Wilner, Irvin.....Detroit
Wilson, Charles Stuart.....M
Wilson, Frederic S.....Detroit
Wilson, Gerald A.....Detroit
Wilson, John D.....Detroit
Wilson, M. C.....M
Wilson, Walter J.....Detroit
Wilson, Walter J., Jr.....M
Winfield, James M.....M
Wiren, Lennart W.....Detroit
Wishrop, Edward A.....M
Wisner, Harold E.....Detroit
Wissman, H. C.....Detroit
Wittenberg, Arthur A.....Detroit
Wittenberg, Samson S.....Detroit
Wittenberg, Sydney S.....Detroit
Witter, Frank C.....Detroit
Witter, Joseph A.....M
Witus, Morris.....Detroit
Witwer, Eldwin R.....Detroit
Wolfe, Max O.....Detroit
Wollenberg, Robert A. C.....Detroit
Wood, George P.....Detroit
Wood, Kenneth A.....M
Wood, Wilford C.....Detroit
Woodry, Norman L.....Detroit
Woods, H. B.....Detroit
Woods, W. Edward.....Detroit
Woodworth, Wm. P.....Detroit
Worzniak, Joseph J.....Wyandotte
Wreggit, W. R.....M
Wruble, Joseph.....Detroit
Wunsch, Richard E.....M
Wygant, Thelma.....Detroit
York, Frederic P.....M
Yott, William J.....M
Young, Donald Andrew.....M
Young, Donald C.....M
Young, Lloyd B.....M
Young, Viola M.....Detroit
Zbudowski, A. S.....M
Zbudowski, Myron R.....M
Zemens, Joseph L.....Detroit
Zimmerman, Israel J.....M
Zimmerman, R. L.....Detroit
Zinn, Geo. H.....Detroit
Zinterhofer, John.....Detroit
Zinterhofer, Louis.....Detroit
Zlatkin, Louis.....Detroit
Zolliker, Carl R.....Detroit
Zuelzer, Wolfgang.....Detroit
Zukowski, Sigmund A.....M

Wexford County

Albi, R. W.....M
Brooks, G. W.....Tustin
Daugherty, R.....M
Hoagland, F. L.....M
Holm, Augustus.....Leroy
Holm, Benton.....Cadillac
Hoverter, J. W.....Evart
Inman, J. C.....M
Lommen, Ralph.....Manton
McCall, James H.....Lake City
McManus, Edwin.....Mesick
Masselink, H. J.....McBain
Merritt, C. E.....Manton
Mills, Robert E.....Boon
Moore, G. P.....M
Moore, Sair C.....Cadillac
Murphy, Michael R.....Cadillac
Purdy, Calvin S.....Buckley
Seltzer, Sol Norris.....Marion
Showalter, Lawrence.....M
Smith, Wallace J.....Cadillac
Tornberg, Gordon C.....Cadillac

Committee Reports

ANNUAL REPORT OF MEDICAL LEGAL COMMITTEE, 1944-45

No meeting of the Medical-Legal Committee was held during the past year as its functions are purely advisory and for review and approval of action taken in final disposition of malpractice suits instituted while the Society was obligated to furnish legal defense for its members.

During the past year one such case has been disposed of and attorneys' fees approved for payment. Correspondence has also been carried on with the Executive Secretary of the State Society in regard to other threatened suits.

In reviewing the correspondence and information furnished to the Medical Legal Committee by members of the Society who have been threatened with suits, it seems timely that the Chairman of this Committee should invite attention to certain points of importance on malpractice prophylaxis.

Extreme care in regard to records should be taken by all physicians during this period of time when inadequate and untrained clerical help is available. Every doctor should be sure that all records are complete and that the correct full name of the patient and all other data is included. If the patient receives a fracture it is essential that records show whether it was on the right or left side, and the same is true in operations, especially for hernia. If radium is inserted, the hour and the date of insertion and of removal should be recorded instead of "radium inserted at 8:30 a.m. to be removed Friday." An incomplete and inaccurate record is little better than no record at all in defense of a suit alleging negligence. It must be remembered that no practicing physician is immune to a suit, and for that reason it must be stressed that the best malpractice defense is good malpractice prophylaxis.

Respectfully submitted,
S. W. Donaldson, M.D., *Chairman*
R. G. Cook, M.D.
R. H. Denham, M. D.
Wm. J. Stapleton, Jr., M.D.

ANNUAL REPORT OF BEAUMONT MEMORIAL COMMITTEE, 1944-45

As stated in the report last year, the Early House on Mackinac Island has been given to the State of Michigan to be under the supervision of the Park Commission. This was made possible through the liberality of Parke-Davis and Company. I communicated with the Mackinac Island Park Commission and offered them the services of our Committee to be used in any way they saw fit if a restoration of the House is to be attempted or if they wish to build up a museum in the House. Thus far no request has come from them. Your Committee still stands ready to co-operate in every way with the Park Commission.

Respectfully submitted,
F. A. Coller, M.D., *Chairman*
A. W. McDonald, M.D., *Vice Chairman*
F. C. Kidner, M.D.
H. C. Mayne, M.D.
Lawrence Reynolds, M.D.

ANNUAL REPORT OF THE ETHICS COMMITTEE, 1944-45

Your Ethics Committee begs to report that no new business has come to its attention since the September meeting. We regret exceedingly the very sudden and untimely death of a very able member in the person of Einer B. Andersen, M.D., of Iron Mountain. "Andy" always was first in answering any correspondence, his analysis of our problems was mature, sensible and very fair and his conscientious response to his duties on the committee was reflected in his private practice which fact makes him truly a war casualty. He will receive no Purple Heart posthumously and he would want none.

Respectfully submitted,
H. W. Porter, M.D., *Chairman*
Guy D. Culver, M.D.
L. O. Geib, M.D.
L. C. Harvie, M.D.
G. B. Hoops, M.D.
E. T. Morden, M.D.
Le Moyne Snyder, M.D.

ANNUAL REPORT OF COMMITTEE ON DISTRIBUTION OF MEDICAL CARE, 1944-45

This committee has not met during the year 1944-45.

Respectfully submitted,
R. L. Novy, M.D., *Chairman*
R. H. Baker, M.D.
A. F. Bliesmer, M.D.
E. I. Carr, M.D.
H. F. Dibble, M.D.
Otto K. Engelke, M.D.
R. H. Pino, M.D.
G. B. Saltonstall, M.D.
Wm. P. Woodworth, M.D.
Wm. R. Young, M.D.
H. B. Zemmer, M.D.

ANNUAL REPORT OF LEGISLATIVE COMMITTEE, 1944-45

The 63rd Michigan Legislature convened on January 3 and adjourned April 27, 1945. During this period, 805 bills were introduced; sixty-four dealt directly with or touched the practice of medicine, of which twenty-nine were passed by the Legislature; an additional ten passed one house but died in the other branch; the balance either died in committee or were killed on the floor.

The 1945 Legislature enacted into law several important measures and amendments sponsored or approved by the Michigan State Medical Society. On the other hand, *no proposed legislation that would have lowered medicine's present high standards—and thereby would have been detrimental to the health and welfare of Michigan—was enacted into law in the 1945 session!*

Two State Medicine Bills

1-2. The two compulsory health insurance bills, S.B. 362 and H.B. 423, introduced towards the end of the session, were never printed and died in committee. However, the medical profession dare not be complacent as a result of this easy disposition of these unfavorable proposals, sponsored by the C.I.O. Rather, the doctors of medicine of this state must recognize the serious threat which these bills present, and must realize that only a little more than a year remains in which they can offer to the people an acceptable substitute, based on *voluntary* methods (such as Michigan Medical Service with a general broadening of its services). If Michigan's doctors of medicine do not develop their own program for more complete distribution of medical care, before the next Legislature meets in January, 1947, the medical profession may expect a bitter battle and possibly the imposition of a most objectionable program of compulsory political medicine.

Bill Proposes Medical Panel Chosen by Workmen's Compensation Commission

3. H.B. 304 represented the greatest threat to the medical profession of all the bills introduced during the past session. It provided among other things that the Workmen's Compensation Commission (a lay body) must compile, publish and supervise a panel of physicians (doctors of medicine and osteopaths); that an injured employe must choose his physician from this panel; and that no physician who is not appointed to this panel by the Commission could treat an injured workman except for first aid.

Thus the sponsors of this bill (the C.I.O.) sought to have medical practice regulated by a governmental agency composed of laymen.

This proposal was fought bitterly in both houses of the Legislature and was finally passed as a mere skeleton of its former dangerous corpulence. As enacted into law, the bill merely provided for the supplying of prosthetic appliances for compensation cases, and the inclusion of "casuals" under the Act. Signed by the Governor as Public Act No. 325 of 1945.

Other Bills Passed by the Legislature

4. S.B. 6, to permit two or more cities, etc., to maintain a community hospital—as introduced, would have authorized the hospital to practice medicine and surgery, and would have permitted others than doctors of medicine to utilize the medical facilities of such a community hospital. Amendments to eliminate these objectionable features were offered by the MSMS Legislative Committee and adopted in toto by the Senate. These eliminated any right of a hospital to practice medicine and surgery. The provision adopted by the Senate making mandatory the hospital standards recommended by the American College of Surgeons was omitted by the House, and as a result the bill went to conference committee. The final report of the conference resulted in the following terminology (in Section 6):

"The Medical Advisory Committee shall, with the approval of the hospital board, adopt rules, regulations and policies governing the professional work of the hospital and the eligibility and qualifications of its medical staff, which may conform, as nearly as practicable, to the applicable standards recommended by the American College of Surgeons."

The Governor signed the amended act, making it Public Act No. 47 of 1945.

5. H.B. 104, permitting supervisors to construct and maintain county hospitals, in counties of more than 100,000 population, for the treatment of indigent persons suffering from any physical ailment, was also amended to include American College of Surgeons standards (similar to S.B. 6), upon the recommendation of the Michigan State Medical Society. Public Act No. 109.

6. H.B. 281, provided for the creation of a state general hospital (Munson) at Traverse City. As introduced, the bill would have permitted the practice of medicine by a hospital. The MSMS offered an amendment to insure that *medical* practice in the hospital shall be on a private basis, which was adopted by the House. As passed by the Legislature, the bill fulfilled the desires of the medical profession in the area to be served by the hospital. Public Act No. 129.

7. H.B. 282, an amendment to the antenuptial physical examination act recommended by the MSMS Committee on Venereal Disease Control, successfully passed the Legislature, and was signed by the Governor as Public Act No. 230.

8. H.B. 366, permitting medical and surgical treatment of deaf children who are wards of the state, was passed by the Legislature and became Public Act No. 175.

9. H.B. 291, as introduced, would have made the Michigan Crippled Children Commission responsible for the costs of the treatment of children admitted to the neuro-psychiatric institute in Ann Arbor. This bill was amended to satisfy the two state departments in interest, and became Public Act No. 218.

10. S.B. 295 froze the licensed status of persons in any profession or occupation, licensed by the state, until their discharge from the armed forces. Public Act No. 189.

11. H.B. 431, to create a Department of Mental Health, in lieu of the State Hospital Commission, was enacted into law and became Public Act No. 271.

12. H.B. 30, providing that information on birth and death certificates shall be typewritten or legibly printed, was passed by the Legislature and became Public Act No. 185.

13. S.B. 163 amended the barbituric act to permit refills without prescriptions, where the barbituric acid is not the principal ingredient in the preparation. The State Board of Pharmacy shall issue a semi-annual directive setting forth the barbituric acid combinations for which prescriptions may be refilled—unless otherwise designated by the prescriber. The lists shall be published in the medical and pharmaceutical journals and be mailed to every registered druggist. It is to be noted that a doctor of medicine always has the right to instruct that the prescription be not refilled. Public Act No. 123.

14. S.B. 83, the appropriation bill relating to public health, became Public Act No. 340.

15. S.B. 141, permitting the Oakland County Board of Supervisors to require the health officer to assume the duties of coroner, was passed by the Legislature and became Public Act No. 143.

16. H.B. 176, amended the act controlling tuberculosis re rules and regulations, expense of treatment, violations, reimbursements. Public Act No. 249.

17. H.B. 188, requires examination for mental or physical reasons in case of suspension or expulsion of pupil from school. The MSMS amendment to include "psychiatrists" under the act was adopted by the House. Public Act No. 70.

18. S.B. 190 contained the general amendments to the Intangible Tax Act. Public Act No. 165. (An analysis of this law will be published in an early issue of the MSMS Journal).

19. H.B. 224, authorized the State Welfare Department to operate camps for the furnishing of relief and medical care to homeless and unattached persons. Public Act No. 157.

20. H.B. 225 amends the afflicted adult act to eliminate legal settlement requirement; amends the reimbursement agreement clause; includes certain afflicted minors. Public Act No. 285.

21. H.B. 247 places the educational program of convalescent crippled children under the direction of the Supt. of Public Instruction at state expense payable to hospitals. Public Act No. 187.

22. S.B. 273 increases the hospital rates for service to crippled children "not to exceed $7.00 per diem" for ward service. Public Act No. 227.

23. S.B. 274 increases the hospital rates for service to afflicted children "not to exceed $7.00 per diem" for ward service. Public Act No. 228.

24. S.B. 344 provides that health officers of cities receiving a salary of $5,000 or more shall turn over fees received for registration of births and deaths to the city treasurer. Public Act No. 312.

25. S.B. 342 raises the ceiling to $6,000 on silicosis or other dust disease benefits under Workmen's Compensation Act. Public Act No. 318.

26-27-28. H.B. 179-180 and 181 increases state participation for indigent tubercular patients. Public Act Nos. 197-198-206.

29. H.B. 335 changes the rates and regulations for treatment of insane persons in certain public and private institutions in Wayne County. Public Act No. 235.

30. S.B. 270 increases the amount of state bounty to county health departments ($3500 per annum for any

1-county health district; $5,000 for any 2-county; $6,000 for any 3-county or 4-county health district). Public Act No. 298.

31. S.B. 223 amends the old age assistance act re residence requirements, support by others, interest in estates or trusts, hospitalization and medical care. Public Act No. 225.

32. S.B. 123, providing that all state departments shall have their rules and regulations approved by the Legislature before they become effective, passed both Houses of the Legislature, but was vetoed by the Governor. Proponents claimed that this bill was a curb on bureaucracy and on "rule by edict."

Bills Passed by Only One House

33. H.B. 20, to change the name of the State Board of Nursing, to recognize practical nurses, and to increase qualifications of registered nurses, passed the House but died in the Senate Committee.

34. H.B. 178 would have removed the limit (now 3) of the number of branch bacteriological laboratories maintained by the State Health Commissioner, passed the House but died in the Senate Public Health & Social Aid Committee.

35. H.B. 166, to permit the State Health Department to purchase and manufacture (as well as distribute) antitoxin, biological products and certain other products for use in the control of communicable diseases, was approved by the House but never left the Senate Public Health and Social Aid Committee.

36. S.B. 49, to amend the Workmen's Compensation Act by changing the number of employes subject to the Act from 8 to 2, was passed by the Senate which amended it to "6." The bill died in the House.

37. H.B. 405, a bill to provide for circuit court review from determinations made by the State Board of Registration in Medicine on revocations and suspensions of license, was passed by the House. After the Senate committee heard testimony by representatives of the State Board of Registration and of the Michigan State Medical Society, this objectionable proposal did not emerge from committee.

38. H.B. 408, to provide for medical treatment of state wards in the Universtiy of Michigan hospital, passed the House but died in the Senate Committee.

39. H.B. 419 would have made mandatory an antenuptial examination to eliminate persons afflicted with epilepsy, feeble-mindedness, imbecility or insanity. Passed the House but died in the Senate Committee.

40. H.B. 388, provided for a change in the Board of Control for Vocational Education by adding two representatives of labor and two representatives of industry for 4-year terms. This Board has charge of an extensive program involving physical restoration for physically handicapped persons, including returning veterans as well as civilians. The bill passed the House but died in the Senate Committee.

41. S.B. 27 would have permitted a hospitalization fund of $20.00 per month to those on old age assistance. This proposal was included in another bill so S.B. 27 died in a House Committee.

42. S.B. 231, general amendments to the Pharmacy Act, passed the Senate but after objectionable amendments were placed thereon in the House, the bill was recalled at the request of the pharmacists, and died in a Senate Committee.

Bills That Did Not Pass Either House

43. S.B. 137 would have created a division of professional and vocational licensing in the Secretary of State's department. Civil service employes would "schedule and conduct written examinations" for 15 boards, including the Michigan State Board of Registration in Medicine. This would have made impersonal the licensing of doctors of medicine et al. Died in Senate Committee after a stormy hearing.

44. S.B. 276, a proposal similar to S.B. 137, also died in the Senate Committee.

45. S.B. 142 would have amended the Afflicted Children's Act to include children who cannot be remedied. Died in Senate Committee.

46. H.B. 182, the hospital licensing bill sponsored by the Michigan Hospital Association, was withdrawn by the M.H.A. which introduced a substitute.

47. S.B. 335, the substitute hospital licensing bill. Died in Senate Committee, after a hearing. The bill was approved by the MSMS Legislative Committee.

48. S.B. 207 provided for the construction and equipment of a new maternity hospital and children's unit at the University of Michigan hospital, to cost $750,000. Died in Senate Committee.

49. S.B. 177 would have permitted hospital service corporations to limit reimbursement to the amount paid to the corporation by a subscriber during a 12 months' period. Died in Senate Committee.

50. H.B. 257 provided for the examination, regulation, licensing and registration of "industrial medical assistants" who were defined in the bill as persons authorized by the state to administer first aid to the sick and injured in an emergency in an industrail plant under the supervision of a licensed physician. Under this bill, the State would have recognized factory first-aiders as a profession. The bill died in the House Committee.

51. H.B. 222 would have made the state responsible for one-half the costs of the hospitalization of afflicted adults, throwing on the state an added expense of approximately $1,750,000 per annum, based on the present low case load of afflicted adults. Died in the House Ways and Means Committee.

52. H.B. 338, requiring the enrichment of bread and flour by the addition of certain vitamins and minerals, was the subject of a public hearing but was re-referred to House Committee on Agriculture, where it died.

53. H.B. 372 would have created a department of mental health headed by a director (a psychiatrist). A substitute bill (H.B. 431 was passed by the Legislature, so H.B. 372 died in committee.

54. H.B. 409 would have required hospital service corporations to pay standard rates to hospitals. This bill was reported without recommendation by the House committee and was defeated on the floor of the House.

55. H.B. 429, to transfer the regulation of health and safety of industrial workers from the State Department of Health to the Department of Labor and Industry, died in committee.

56. H.B. 107 would have permitted the creation of psychopathic wards in municipally operated hospitals, with the state providing reimbursement for patient care. Died in House Committee.

57. H.B. 189 would have expanded special education for physically or mentally handicapped children. Died in House Committee.

58. H.B. 219 would have permitted welfare relief to non-residents when authorized in certain cases. Died in House Committee.

59. S.B. 118 provided for the licensing, inspecting, and regulating of maternity homes or hospitals. The MSMS recommended an amendment to insure that maternity homes and hospitals do not have the right to practice medicine. The bill died in the Senate Committee.

60. S.B. 145 would have repealed section in Workmen's Compensation Act providing silicosis graded death benefit. Died in Senate Committee.

61. S.B. 148 would have amended the Workmen's Compensation Act to permit unlimited medical, surgical, hospital, dental, nursing care, and prosthetic appliances until injured employe is *cured*—no time limit; also would have created free choice physician panel to be developed by Workmen's Compensation Commission (similar to H.B. 304). The confidential communication between physician and patient, in workmen's compensation

cases, would have been destroyed. Died in Senate Committee on Labor.

62. S.B. 259 offered amendments to the Workmen's Compensation Act, increasing certain benefits, expense of examinations, etc. Died in Senate Committee on Labor.

63. S.B. 291 provided that the State Welfare Department shall pay one-half the costs of administration and of adult hospitalization. This bill was similar in intent to H.B. 222. It died in the Senate Committee.

64. S.B. 302 would have amended the Workmen's Compensation Act so that it applied to all employers regardless of number of employes; changed medical, surgical and hospital service and death benefits. Died in Senate Committee on Labor.

Thanks

The Legislative Committee again expresses appreciation to the intelligent and health-minded members of the Michigan Legislature for their courteous consideration of the legislative problems of the medical profession and the courteous reception they extended our representatives during the 1945 session.

To his Excellency, Governor Harry F. Kelly, the Legislative Committee is grateful for the friendly co-operation he and his office extended to the medical profession in all health matters.

The Committee also says sincere "thanks" to the members of the medical profession—especially the legislative keymen—who kept their friends in the Senate and House well informed concerning medical legislation.

Respectfully submitted,

H. A. Miller, M.D., *Chairman*
C. J. Barone, M.D.
R. G. Cook, M.D.
T. K. Gruber, M.D.
E. D. King, M.D.
S. L. Loupee, M.D.
G. L. McClellan, M.D.
Harold L. Morris, M.D.
Elmer W. Schnoor, M.D.
E. F. Sladek, M.D.
R. V. Walker, M.D.
A. Verne Wenger, M.D.
L. G. Christian, M.D., *Advisor*

ANNUAL REPORT OF THE COMMITTEE ON NURSES TRAINING SCHOOLS, 1944-45

The Committee did not meet this year.

All nurses training at the present time is supervised by the Army and Navy and is carried out, accordingly, at their direction. Under these circumstances, and until this arrangement is terminated, there is no work that this committee can accomplish.

Respectfully submitted,

Ellery A. Oakes, M.D., *Chairman*
A. L. Arnold, Jr., M.D.
C. G. Clippert, M.D.
A. E. Stickley, M.D.
D. W. Thorup, M.D.

ANNUAL REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH, 1944-45

1. The activities of the Committee on Industrial Health were held to a minimum during the year because of travel restrictions and the time limitations of the committee members. One meeting was held, on January 17, 1945, for the primary purpose of developing a program and to make plans for the Third Annual Industrial Health Conference.

2. The Conference this year was held on April 5 at the Rackham Educational Memorial Building in Detroit in co-operation with the Department of Post-Graduate Medical Education of the University of Michigan. The meeting was attended by 164 individuals, including physicians, nurses, personnel and employment men, and a number of plant managers.

3. A talk on industrial health, sponsored by the Committee, was presented to the Alpena County Medical Society.

4. The Chairman of the Committee attended the Regional Industrial Health Conference in Chicago on June 8 which was sponsored by the Council on Industrial Health of the American Medical Association.

Respectfully submitted,

K. E. Markuson, M.D., *Chairman*
H. H. Gay, M.D., *Vice Chairman*
A. L. Brooks, M.D.
Wm. P. Chester, M.D.
Henry Cook, M.D.
W. A. Dawson, M.D.
W. B. Harm, M.D.
C. K. Hasley, M.D.
Frank T. McCormick, M.D.
C. D. Selby, M.D.
H. T. Sethney, M.D.
E. C. Sites, M.D.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH—1944-1945

As indicated in item No. 4 of the original report, the chairman of the committee attended the Regional Industrial Health Conference in Chicago on June 8, which was sponsored by the Council on Industrial Health of the American Medical Association.

Considerable discussion occurred at this meeting and several items were brought out that might be used as a basis for a good program for our committee for next year. They should be especially helpful in promoting more activity on the part of local medical societies in Michigan.

Since there is such an acute shortage of physicians, every possible means must be used to provide industry with adequate medical service. To do so we must develop a better understanding of industrial medical problems between industrial physicians, private practitioners, labor and management. Much of the medical work in industry is carried on by the general practitioner and, therefore, it is important that he become familiar with plan operations, processes and harmful exposures. Management and labor should be informed in regard to the aims and merits of a proper medical program.

To disseminate such knowledge and to develop better co-operation between these groups the program of the Committee on Industrial Health for next year might include the following:

1. Continuation of the annual spring conference.
2. Arrange to hold one of the monthly meetings of the local medical societies located in industrial areas at an industrial plant having proper facilities for such a meeting. Preferably this meeting should include dinner at the plant, a tour of inspection of the plant operations, and a general talk and discussion covering the various phases of industrial medicine and its relation to private practice. Management of all local plants and labor representatives should also be invited to these meetings so that all concerned will become acquainted with the mutual problems concerning health maintenance programs.
3. The use of in-plant training programs for physicians wishing to enter industrial service.

Kenneth E. Markuson, M.D., *Chairman*

ANNUAL REPORT OF COMMITTEE ON PREVENTIVE MEDICINE, 1944-45

At the one meeting held by the committee during the past year the review of the activities of each of the advisory committees revealed that a great deal of essential work was accomplished in spite of the numerous

prevailing obstacles. At least one meeting was held by each sub-committee, positive effective action characterizing practically each such event.

Of special interest and significance is the work of the Cancer Control Committee in its continuing effort to broaden the educational base for both the profession and the laity; of the Venereal Disease Control Committee in dealing with the problems of prophylaxis and in helping to modify the antenuptial examination act; of the Industrial Health Committee which this year again achieved distinction through an impressive conference on Industrial Medicine and Surgery; of the Committee on Tuberculosis Control which is involved in ironing out the difficult problems of tuberculosis case finding in industry and formulating workable plans for miniature x-ray film studies of suspects; and of both the Child Welfare and Heart and Degenerative Committees in dealing with the serious problem of rheumatic fever.

The annual reports of the individual committees which comprise the Preventive Medicine Committee are uniformly incomplete in one detail. They fail to reveal the many hours of effort which each member has generously contributed in the interest of better public health for Michigan's public.

Respectfully submitted,

WM. S. REVENO, M.D., *Chairman*
JOHN BARNWELL, M.D.
J. D. BRUCE, M.D.
B. R. CORBUS, M.D.
R. N. DEJONG, M.D.
WM. DEKLEINE, M.D.
L. O. GEIB, M.D.
WM. A. HYLAND, M.D.
H. A. LUCE, M.D.
K. E. MARKUSON, M.D.
H. H. RIECKER, M.D.
L. W. SHAFFER, M.D.
C. E. TOSHACH, M.D.
FRANK VAN SCHOICK, M.D.

ANNUAL REPORT OF THE CHILD WELFARE COMMITTEE, 1944-45

The Child Welfare Committee of the Michigan State Medical Society has had no regular meeting during the current year. Its rather limited activities have been carried on through correspondence and personal contact by the chairman with various committee members.

Contact, consultation and increasingly co-operative relations have been maintained with the chairman of the Child Welfare Committee of the American Legion. We feel this is a very important contact because in the future, even more than in the past, the Legion is going to be very active in child welfare activities. We also feel that this is the proper approach to many of our problems rather than altogether through governmental agencies.

The problem of postgraduate education and refresher courses for the returning doctor has progressed beyond the limits of our committee.

The most significant activity of our committee began nearly two years ago when we consulted frequently with Carlton Dean, M.D., of the Michigan Crippled Children Commission relative to establishing a rheumatic fever control area for a test of a proposed rheumatic fever program. In the past two years repeated contacts have been made with Dr. Dean and the program has progressed very nicely to the point where, together with the MSMS Heart and Degenerative Disease Committee, we are formulating a statewide plan for rheumatic fever control. A special committee for this study has been set up, composed of the chairmen of the Heart and Degenerative Disease Committee, the Child Welfare Committee, Carleton Dean, M.D., and L. Fernald Foster, M.D. A résumé of this activity can best be demonstrated by the outline reproduced below.

A rheumatic fever program should concern itself with—

1. Education—lay and professional.
2. Research
3. Cases—
   (a) case finding
   (b) diagnosis (consultations)
   (c) treatment (hospitalization)
   (d) follow-up (social service, et cetera)
   (e) schooling facilities.

Professional Education:

1. Clinic for M.D.s—invitational—intensive
2. Extramural P.G. courses
3. County Medical Society Programs
4. Necessity for reporting in Michigan

Lay Education:

1. News releases
2. Pamphlets
3. Schools (P.T.A.)
4. Public Groups (service clubs, et cetera)

Research:

This should be stimulated under private subsidization when possible.

Case Program:

1. Case finding by
   (a) Reports of Michigan Crippled Children Commission
   (b) Reports of Michigan Department of Health
   (c) Physicians
   (d) Nurses
   (e) Others.
2. Diagnostic services—(consultations)
   (a) Designating hospital centers where facilities and qualified personnel are available.
3. Treatment services:
   (a) Hospitals
   (b) Convalescent
   (c) Boarding homes
   (d) Home care
4. Follow-up services:
   (a) Physicians
   (b) Nurses
   (c) Other trained personnel
5. Schooling:
   (a) School authorities—state subsidy.

This program is the combined effort of the Michigan State Medical Society and the Michigan Crippled Children Commission to provide adequate facilities for the finding, treatment and prevention of rheumatic fever. It is designed to keep this activity in the hands of the practicing profession with no disturbance of the established physician-patient relationship.

Respectfully submitted,

FRANK VAN SCHOICK, M.D., *Chairman*
R. M. KEMPTON, M.D.
MOSES COOPERSTOCK, M.D.
CARLTON DEAN, M.D.
CAMPBELL HARVEY, M.D.
JOHN L. LAW, M.D.
CHAS. F. MCKHANN, M.D.
A. L. RICHARDSON, M.D.
L. PAUL SONDA, M.D.

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ANNUAL REPORT OF PROFESSIONAL LIAISON COMMITTEE, 1944-45

The Committee held no meetings, as no matters or problems within the purview of the Committee's activity was referred to it during the past year.

Respectfully submitted,

ALPHEUS F. JENNINGS, M.D., *Chairman*
W. F. BOUGHNER, M.D.
R. A. SPRINGER, M.D.

Woman's Auxiliary

PRESIDENT'S MESSAGE

There will be no national convention this year. Probably there will be a Board of Directors meeting (this does *not* include state presidents). Watch The Bulletin for information.

We are still hoping and planning on having a state convention in September. We shall know definitely during the summer whether this will be possible. Watch THE JOURNAL for this news.

* * *

Have you read "The Road to Serfdom" by Frederich A. Hayek? A condensation appeared in the April *Reader's Digest*. All the basic reasons against socialization of a group appear in this work.

* * *

I visited Jackson, Bay City and Midland, in April. On my visit to St. Clair (Port Huron) in March, the president-elect, Mrs. James M. Atkinson, turned out to be an old friend I hadn't seen in twenty years.

All the counties are doing excellent work on the state projects and are particularly interested in legislation.

Credential cards for the state convention have been sent out. Delegate cards (the portion marked "duplicate for file") should be sent to Mrs. T. Grover Amos before September 1—even if there is no convention. In this case, new officers will be voted on by mail.

MRS. H. L. FRENCH, *President*

* * *

THE COMING YEAR

Another Auxiliary year is fast drawing to a close. Each year we realize more and more that the aims of the Woman's Auxiliary have a greater importance in the scheme of things. To the members of the Woman's Auxiliary to the Michigan State Medical Society the past few years have been filled with the pressing tasks of service. In the necessity of war, we have come to know a completeness of service and a satisfaction in the knowledge that we belong to an organization which is striving to do its share in hastening the day of final victory. We are at the service of our Medical Society at all times and pledge our strength in victorious war effort and postwar planning.

Under the able guidance of our president and her efficient corps of committee chairmen, the past year has been most successful. In order that your president-elect and the new committee chairmen may make their plans for the coming year, I should like to ask that each county president for 1945-46 send me at her earliest convenience a complete list of officers and chairmen. I shall be happy to answer any questions that I can concerning auxiliary work and will welcome any suggestions our members have to offer.

Study and promote vigorously the objectives for which we stand as an auxiliary to the Michigan State Medical Society, which are set forth in our constitution and by-laws:

(a) It is evident that Auxiliary members must know the aims of the medical profession before they can extend them to other organizations or undertake any kind of public relations work. To understand these aims requires constant reading of the national and state medical journals and also frequent attendance at Auxiliary meetings.

(b) Attend the State Medical conventions. Whether you are a delegate or not, attend all meetings. Gaining new friends is mining the richness of life.

(c) Friendliness among physicians' families cannot be too greatly emphasized at the present time when all are burdened with unusual cares and responsibilities.

(d) Is your county making an earnest effort to widen its influence in your community?

Are you promoting *Hygeia?*

Did your schools enter the Radio Speech Contest?

How many of your members subscribe to *The Bulletin?*

(e) Do you understand the provisions of the Student Loan Fund?

I wish to express my sincere thanks to our president, Lela French, and to her committee chairmen for their words of encouragement and unfailing co-operation in keeping me informed of all auxiliary activities this year. With this assistance, and with the co-operation of each and every member, we are looking forward to a year of service and achievements.

(MRS. L. C.) DELL A. HARVIE, *President-elect.*

* * *

ORGANIZATION

This is a very difficult time for organization work. I should like to urge every Auxiliary member and county unit to consider themselves a part of my committee and grasp every opportunity to boost the organization. At this time when co-operation and unity are especially needed in the medical profession I feel that, that alone should create interest and bring all outside our Auxiliary into it. The help we have been asked to give by the State Medical Society should be sufficient proof of our worth. All this proposed legislation affecting the doctors has to be fought and information spread regarding it. The doctors themselves are much too busy and much of this falls to their wives. What thinking doctor's wife can put anything ahead of the welfare of her husband's profession?

At the present time Huron County and The Medical Society of Northern Michigan are considering organizing. Charlevoix County sent in four members-at-large and Mecosta County, one.

MRS. OSCAR D. STRYKER
State Chairman

What's What

Honors

T. E. DeGurse, M.D., of Marine City, a Councilor of the Michigan State Medical Society, was recently honored upon the completion of fifty years of practice by the St. Clair County Medical Society. A distinguished company of his confrères and guests met at the St. Clair Inn on June 12 to shower Dr. DeGurse with many testimonials. Among the speakers were MSMS President A. S. Brunk, M.D., Detroit, Secretary L. Fernald Foster, M.D., Bay City, who presented a Resolution from the Michigan State Medical Society; Councilors C. E. Umphrey, M.D., Detroit, who read a Resolution from the Wayne County Medical Society; R. S. Morrish, M.D., Flint; E. R. Witwer, M.D., Detroit; O. O. Beck, M.D., Birmingham; O. D. Stryker, M.D., Fremont; MSMS Past-Presidents L. J. Hirschman, M.D., and J. M. Robb, M.D., both of Detroit.

Among others called upon by Toastmaster A. Benjamin Armsbury, M.D., of Port Huron were: E. C. Sites, M.D., and Neil J. McColl, M.D., of Pt. Huron; R. J. Hardstaff, M.D., Detroit; William J. Cassidy, M.D., Detroit; C. F. Brunk, M.D., Detroit; Major P. V. Wagley, M.D., Pontiac; R. E. Lynch, M.D., Centerline, and MSMS Executive Secretary Wm. J. Burns.

Many floral tributes and letters gave evidence of the high esteem in which Dr. DeGurse is held by the many thousands in Michigan and elsewhere who have come in contact with him during the fifty years of his medical service. He was eulogized as "the personification of the keystone in the practice of American Medicine."

The St. Clair County Medical Society presented Dr. DeGurse with a record book of the occasion, to commemorate the event.

* * *

H. W. Wiley, M.D., Utica, was honored at a testimonial dinner by the citizens of his community where he faithfully served the public for forty-six years.

The testimonial was sponsored by the Utica Chamber of Commerce. John F. O'Hara acted as toastmaster; Clark D. Brooks, M.D., of Detroit spoke on "Dr. Wiley and His Profession."

Doctor and Mrs. Wiley were presented by the guests present with a beautiful fireplace set for their new home.

* * *

Henry R. Carstens, Colonel, MC, received an Italian decoration from the hands of Crown Prince Umberto, Lt. Gen. of the Realm, in May. He was made a Commander of the Order of the Crown of Italy. Dr.

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A SAFE *Summer* PRESCRIPTION FOR INFANT NUTRITION

Even under the handicaps of travel or vacation accommodations, a mother can easily prepare a *safe* formula for her infant . . . by just adding cooled boiled water to Biolac according to the physician's directions. The simplicity of preparation (dilution only) minimizes possibilities of formula contamination even under adverse conditions.

In addition to safety and simplicity of preparation, Biolac formulas provide complete nutrition when supplemented with vitamin C. No chance omission of needed vitamins, carbohydrates or iron can occur. Biolac simply and safely affords nutritional elements for optimum health.

Easily calculated . . . quickly prepared. 1 fl. oz. Biolac to 1½ fl. oz. water per pound of body weight.

BORDEN'S PRESCRIPTION PRODUCTS DIVISION
350 MADISON AVENUE · · NEW YORK 17, N. Y.

Biolac

"BABY TALK" FOR A GOOD SQUARE MEAL

Biolac is a liquid modified milk, prepared from whole and skim milk, with added lactose, and fortified with vitamin B_1, concentrate of vitamins A and D from cod liver oil, and iron citrate. Evaporated, homogenized, and sterilized. Biolac is available in 13 fl. oz. cans at all drug stores.

ACCEPTED AMERICAL MEDICAL ASSN

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Carstens is a Past-President of the Michigan State Medical Society.

At the same time Col. L. Byron Ashley, MC, Lt. Col. McLester, MC, Lt. Col. C. L. Douglas, MC, and Major Steinberg, MC, were made Knights (Cavalier) of the Order of the Crown of Italy.

These awards were made for extraordinary medical service to the civilian population of Naples and vicinity.

* * *

A. S. Brunk, M.D., president of the Michigan State Medical Society, was elected permanent chairman of the Committee on Public Relations and Radio for Seventeen States at its May 24 meeting in Buffalo, N. Y. The committee represents the seventeen state medical societies which sent representatives to the Detroit Public Relations Conference, April 27. The following states were represented at the Conference: Connecticut, Delaware, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Wisconsin, and District of Columbia.

* * *

Wayne County Medical Society officers were hosts to Mr. Melville B. McPherson at a testimonial luncheon in the Hotel Olds, Lansing, on June 6. A certificate of Honorary Membership in the Wayne County Medical Society, conferred on Mr. McPherson at the WCMS annual meeting in May, was presented to him by immediate Past-President L. W. Hull, M.D.

* * *

Clarence L. Candler, M.D., Detroit, chairman of the MSMS Special Committee on Radio, was recently elected president of the East Side Medical Society, a branch of the Wayne County Medical Society, Detroit.

* * *

Tips

Thirty Days' Notice.—In connection with requests for Emeritus and Retired Membership, the MSMS By-Laws in Chapter I, Section 8, state: "Transfers shall be by election in the House of Delegates. Requests for transfers shall be accompanied by certification by the secretary of the State Society, as to years of practice and years of membership in good standing. The County Society of such members shall make request for certification, in writing, to the Secretary of the State Society thirty days in advance of an annual session."

* * *

A motion picture in color depicting in detail an abdominoperineal proctosigmoidectomy is available for showing by county medical societies. Write Frederick Stearns & Co., c/o John Seward, Manager of Professional Service Dept., Detroit, Michigan. The showing time of the film is thirty-eight minutes.

* * *

Schenley Laboratories, Inc., began its latest series of coast broadcasts entitled "The Doctor Fights" on June 5. These half-hour dramatizations of actual feats accomplished by medical officers of the Armed Forces during

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the present war will be dramatized by leading Hollywood dramatic stars.

* * *

The University of Illinois College of Medicine announces a fall refresher course in Otolaryngology, Rhinology and Otology, September 24 through 29. For further information write A. R. Hollender, M.D., 1853 West Polk Street, Chicago 12.

POSTGRADUATE CREDITS

Michigan Doctors of Medicine who have taken postgraduate courses outside the State or within the State are invited to advise H. H. Cummings, M.D., Department of Postgraduate Medicine, University Hospital, Ann Arbor, in order that proper credit may be received for Fellowship or Associate Fellowship in Postgraduate Medicine, Michigan State Medical Society.

The Annual Medicolegal Conference and Seminar of the Department of Legal Medicine of the Medical Schools of Harvard, Tufts, and Boston University in association with the Massachusetts Medicolegal Society will be held in Boston, October 1 to 6. For full information write the Secretary, 25 Shattuck Street, Boston 15.

* * *

Good Reading

Wm. S. Reveno, M.D., Detroit, is the author of an original article, "Thiouracil in Thyrotoxicosis," which appeared in JAMA, June 9.

* * *

"Spinal Anesthesia by Uretheral Catheter" is the title of an original article by Major Edw. V. Tuohy, MC, AUS, Battle Creek, Michigan.

* * *

Socio-Economic

Michigan Medical Service has the largest enrollment of any voluntary medical service plan in the United States (if not the world). Its total number of subscribers amounts to some 800,000 (as of July 1). California Physician Service has the second largest enrollment of medical service plans operated in co-operation with Blue Cross; CPS totals 160,000 subscribers. In all, approximately 1,700,000 subscribers are enrolled in various medical service plans which work in conjunction with Blue Cross. In addition, several hundred thousand subscribers are enrolled in medical service plans and indemnity programs operated by medical societies, which are not associated with Blue Cross.

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Fourteen compulsory health insurance measures were introduced into the Legislatures of six states in 1945; seventeen cash sickness benefit measures were proposed to the Legislatures of nine states, this year.

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Meetings

Paul D. Bagwell of Michigan State College addressed the St. Joseph County Medical Society at the Klinger Lake Country Club on June 12. His subject was "Democracy at the Cross Roads." The meeting was attended by the druggists, dentists, lawyers, bankers and businessmen of St. Joseph county, guests of the County Medical Society.

* * *

The Southwestern Michigan Academy of Medicine was formally launched on May 11 with a dinner meeting at the Whitcomb Hotel at St. Joseph, Michigan. It was organized by leaders of St. Joseph and Benton Harbor to bring to the medical staff meetings of the twin city hospitals outstanding men in the medical profession to lecture and promote discussions on new developments and progress in the field of medical science. D. W. Thorup, M.D., of Benton Harbor, was chosen as President and R. C. Conybeare, M.D., of Benton Harbor, Secretary.

* * *

The Michigan Pathological Society held its regular bimonthly meeting at the St. Francis Hospital, Detroit, on June 9, 1945. A seminar on "Diseases of the Heart" was conducted by Dr. Otto Saphir of the Michael Reese Hospital, Chicago. Forty-four members and guests were present.

* * *

Wartime Graduate Medical Meetings held at Percy Jones General and Convalescent Hospital, Battle Creek, during June included the following: June 4, Richard H. Lyons, M.D., Ann Arbor, spoke on "Cardiovascular Dynamics"; June 11, Ralph Ghormley, M.D., Rochester, Minnesota, spoke on "Backache and Vertebral Lesions"; June 18, Major H. Chapnick and Staff spoke on "Discussion of Testicular Tumors"; Captain Mark Dale and Staff spoke on "The Post-Scrub Typhus Syndrome" and Captain W. E. Peltzer and Staff presented a case from the Percy Jones Hospital Annex; June 25, Lt. Col. Frank H. Mayfield spoke on "Statistical Report of the Work of the Neurosurgical Section since April 1, 1943; Lt. John H. Mayer spoke on "Lesions of the Posterior Interosseus Branch of the Radial Nerve; Lt. J. J. Byrne spoke on "Repair of Cranial Defects with Tantalum (Analysis of Cases Done)"; and Lt. Jack L. Ulmer spoke on "Causalgia (Analysis of seventy-five Cases)."

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Talks

The MSMS commercial radio program over WJR, Fridays at 7:15 p.m., EWT, has featured the following medical speakers:

Feb. 16—C. L. Candler, M.D., Detroit, "Healthiest Nation"
Feb. 23—L. Fernald Foster, M.D., Bay City, "What MSMS Is and Does"
Mar. 2—Wm. A. Hyland, M.D., Grand Rapids, "Michigan Medical Service"
Mar. 9—O. D. Stryker, M.D., Fremont, "Medical Men in Service"

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March 16—Wilfrid Haughey, M.D., Battle Creek, "Psychiatry After the War"
Mar. 23—E. F. Sladek, M.D., Traverse City, "Voluntary Programs of Medical Care"
Mar. 30—R. S. Morrish, M.D., Flint, "Health Education of the Public"
Apr. 6—P. L. Ledwidge, M.D., Detroit, "Protection Against Major Hazards of Illness"
April 20—C. E. Umphrey, M.D., Detroit, "Postgraduate Medical Education"
Apr. 27—L. J. Hirschman, M.D., Detroit, "New Benefits under Michigan's Blue Cross Plans"
May 4—A. S. Brunk, M.D., Detroit, "Greater Safety and Health for All Workers in Industry"
May 11—O. O. Beck, M.D., Birmingham, "Our Medical Veterans' Readjustment Program"
May 18—E. R. Witwer, M.D., Detroit, ',Progressive Michigan Medicine"
May 25—W. E. Barstow, M.D., St. Lou's, "A Friend in Need"
June 1—Dean W. Myers, M.D., Ann Arbor, "Blue Cross Plans and Preventive Medicine"
June 8—T. E. DeGurse, M.D., Marine City, "America Needs Medical Students NOW"
June 15—S. W. Insley, M.D., Detroit, "A Medical Co-operative"
June 22—F. H. Drummond, M.D., Kawkawlin, "Michigan Medical Service Brings Peace of Mind"
June 29—Harold A. Miller, M.D., Lansing, "Relief from the Unpredictable Financial Burdens of Illness"
July 6—J. Milton Robb, M.D., Detroit, "Michigan Medical Service Covers the Family"

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WESTERN MICHIGAN RADIO FORUM

Western Michigan College of Education through its Adult Education Department, conducted a radio forum Tuesday evening, May 22, on the subject: How can we extend adequate medical acree to all of our people? The Panel was composed of Anson Anderson, Executive Secretary CIO Health Center, Detroit; Odin Anderson, School of Public Health, Ann Arbor; Wilfrid Haughey, M.D., Councilor and Editor of the JOURNAL, Michigan State Medical Society, and Jay C. Ketchum, Executive Director and Vice President, Michigan Medical Servce.

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

MY SECOND LIFE. By Thomas Hall Shastid, A.M., M.D., LL.B., Sc.D., F.A.C.S., F.A.C.P, et cetera. Illustrated. Ann Arbor, Michigan: George Wahr, 1944. Price $10.00. Permanent Paper Edition, $12,00.

Doctor Shastid has already done his autobiography, but here gives intimate stories of his friends and acquaintances, making them live again. He makes distinction between a doctor's patients (sick people) and clients (those who employed him to attend their sick). The book is too thick for easy handling, but full of delightful reading.

DIETOTHERAPY—Clinical Application of Modern Nutrition: Edited by Michael G. Wohl, M.D., Associate Professor of Medicine, Temple University School of Medicine; Chairman, Advisory Committee on Nutrition, Philadelphia Department of Public Health; With a Foreword by Russell M. Wilder, M.D., Ph.D., Professor of Medicine and Chief of the Department of Medicine, Mayo Foundation; Member of the Committee on Medicine and Subcommittee on Medical Nutrition, Medical Sciences Division, National Research Council. 1029 pages with 93 illustrations. Philadelphia and London: W. B. Saunders Company, 1945. Price $10.00.

This volume is an outgrowth of the war. The stress now in dietary treatment is not among the foods, but the food values and balances. It is actually a symposium of well-related articles by a host of authorities on medicine and nutrition. Allergies and vitamins are studied in their relations of every conceivable diseased condition. A most interesting and valuable chapter is on nutrition, income, and budgeting. Chemistry of nutrition is given, but the tiresome tables of fat, protein and carbohydrate are in the background. Short lists of 5 per cent, 10 per cent and 15 per cent carbohydrate foods are given. Diets for cardiovascular diseases, arthritic disease, surgical cases are given. The text is a valuable guide to very exact knowledge of the whole subject of nutrition.

COURAGE AND DEVOTION BEYOND THE CALL OF DUTY. Being a partial record of official citations to medical officers in the United States Armed Forces during World War II. Preliminary Edition, November, 1944. Evansville, Indiana: Mead Johnson & Company. Free.

This little paper-covered booklet is most unusual. It lists Michigan doctors of medicine who have received citations as follows: Legion of Merit: Capt. Hermon E. Diskin, MC, U.S.A., Detroit, and Lt. Horace M. Gezon, MC, U.S.N.R.; Bronze Star: Lt. James B. Ashley, MC, U.S.A., Detroit (Posthumous), Capt. Bryne M. Daly, MC, U.S.A., Jackson (Purple Heart); Capt. Mark W. Dick, MC, U.S.A., Grand Rapids; Lt. Francis Bruce Moore, MC, U.S.A., Iron River; Silver Star: Capt. James L. Browning, MC, U.S.A., Iron Mountain; Soldier's Medal: Capt. Cecil D. Conrad, MC, U.S.A., Highland Park; Distinguished Service Cross: Capt. Harry J. Stone, MC, U.S.A., Detroit; Cited for Exceptional Devotion to Duty: Lt. Com. Cyril D. Klaus, MC, U.S.N., Grand Rapids. Commendation: Capt. Nicholas Lentini, MC, U.S.A., Cheboygan; Unit Citation, 36th General Hospital, Lt. Col. W. C. C. Cole, Commanding (Including 52 physicians).

IT'S THE LAW, DOCTOR

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A subsequent case arose out of an automobile accident in which an effort was made to show that the plaintiff had been feeble-minded before the accident, and that the injuries suffered were not the cause of his present mentally defective condition. The defendant persuaded the trial court that the entire file of plaintiff's hospital treatments and examinations after the crash should be admitted, pursuant to the 1935 act. The supreme court found this to be error, and said:

"This act provides for the admission of records of any act, transaction, occurrence or event if the record was made in the regular course of business and if it was the regular course of such business to make such memorandum at the time of the occurrence, or a reasonable time thereafter. GILE v. HUDNUTT, 279, Mich. 358 holds hospital records come within the purview of this act. However, the GILE case and SADJAK v. PARKER-WOLVERINE CO., 281 Mich. 84. 87, both hold that the act has its limitations and that the only admissible record is that which refers to acts, transactions, occurrences or events incident to hospital treatment. Parts which do not, are hearsay and not admissible. Therefore, in admitting the hospital record, the trial court should have admitted only those parts having to do with matters within the limitations of the statute. It was error to admit parts of the hospital record which contained only information given by various people as to the history of the plaintiff prior to the accident." VALENTI v. MAYER, 301 Mich. 551.

The most recent case to come before our supreme court involving the question of the admissibility of hospital records, arose from the following circumstances: A woman was fatally burned as the result of an explosion of a gasoline stove. She was taken to Eloise Hospital, where she died. The records of this hospital were admitted in evidence and contained a history that the deceased had received her burns as a result of an explosion of a gasoline stove. The court held those portions of the record dealing with the history to be inadmissible, and reaffirmed its former decisions in this regard. HARRISON v. LORENZ, 303 Mich. 382.

In a recent malpractice case, hospital records made in regular course were offered in evidence as proof of malpractice. The defendant argued that the hospital records were privileged and that the privilege could only be waived by a living patient, but the supreme court held that the privilege might be waived by an executor or administrator and that the hospital records were admissible as evidence of malpractice. HARVEY v. SILBER, 300 Mich. 510.

From the foregoing discussion, it may be seen that hospital records, if made in the usual course, are now readily admissible in the courts of our state, with the principal limitation that their evidentiary value is confined to transactions, occurrences, or events which transpired at the hospital in the course of treatment.

Socialized medicine is nothing more nor less than compulsory political rationing of the nation's health services. —*The Railroad Journal,* August, 1944.